

NOUVELLE PROTEINE DE FIXATION DU PHOSPHATE, COMPOSITIONS PHARMACEUTIQUES LA CONTENANT ET SES UTILISATIONS

5 La présente invention a pour objet une nouvelle protéine, issue du sérum humain, de fixation du phosphate, des compositions pharmaceutiques la contenant ainsi que ses utilisations, notamment dans le cadre du traitement de l'hyperphosphatémie et des maladies cardiovasculaires ou de l'arthrite.

10 Le phosphate est une molécule très importante impliquée dans de nombreux mécanismes biologiques. On retrouve notamment le phosphate dans les phospholipides, dans le mécanisme de production d'énergie (ATP, ADP), dans les processus de signalisation cellulaire, dans la composition du matériel génétique dans les os (sous forme de phosphate de calcium).

15 L'hyperphosphatémie est une pathologie liée à un excès de phosphate dans l'organisme et provoque notamment une augmentation des risques de maladies cardiovasculaires, en favorisant les processus d'athérosclérose et de calcification des artères (Dorozhkin et Epple, 2002 ; Amann et al., 2003 ; Blazhevich et al., 1975). La calcification s'effectuant au niveau des articulations, l'hyperphosphatémie peut aussi provoquer de l'arthrite (pseudo-goutte).

20 Les sels de phosphate de calcium produits dans le sérum lors d'une hyperphosphatémie précipitent dans les tissus mous avec calcification ectopique dans différents tissus : vaisseaux (accidents vasculaires cérébraux ou cardiaques), articulations (pseudo-goutte), cristallin, interstitium rénal (néphrocalcinose), sous-cutanées (prurit), pulmonaires, pancréatiques.

25 Ainsi, la moitié des décès chez les personnes souffrant d'insuffisance rénale est due à des maladies cardiovasculaires liées à l'hyperphosphatémie. A cet égard, certains chélateurs du phosphate qui complexent le phosphate dans la lumière intestinale sont actuellement utilisés comme médicament. Cependant, tous ces chélateurs ne sont pas physiologiques. De là découlent certaines complications ou restrictions quant à leur
30 usage.

Les préparations contenant du magnésium sont limitées par la survenue de troubles digestifs (diarrhée) et sont à proscrire en raison du risque d'hypermagnésémie. De même, la prescription d'hydroxyde d'aluminium, longtemps utilisé du fait de son efficacité, doit être évitée, ou du moins limitée à de très faibles périodes, en raison du

– ou toute séquence homologue de la séquence SEQ ID NO : 2 ou SEQ ID NO : 3, ayant de préférence une homologie d'au moins environ 80% avec la séquence SEQ ID NO : 2 ou SEQ ID NO : 3, sous réserve que ladite séquence homologue se lie au phosphate,

5 – ou tout fragment d'une des séquences définies ci-dessus, sous réserve que ledit fragment se lie au phosphate, notamment tout fragment étant constitué d'au moins environ 20 acides aminés contigus dans la séquence SEQ ID NO : 2 ou SEQ ID NO : 3.

La séquence SEQ ID NO : 2 correspond à la protéine humaine de fixation du phosphate. Cette nouvelle protéine a été isolée dans le plasma humain et sa structure
10 tridimensionnelle montre qu'elle appartient à la classe des "phosphate binding protein" (protéines de fixation du phosphate : PBP). Elle est également appelée par la suite HPBP (protéine humaine de fixation du phosphate).

La séquence SEQ ID NO : 3 correspond à une protéine homologue de la protéine de séquence SEQ ID NO : 2, présentant un pourcentage d'identité d'environ 90% avec
15 la séquence SEQ ID NO : 2, et ayant les mêmes propriétés de fixation du phosphate que la séquence SEQ ID NO : 2.

La propriété de fixation du phosphate des séquences de l'invention peut être vérifiée par le test suivant de fixation du phosphate par marquage radioactif :

La protéine est fixée sur une membrane de nitrocellulose (dot blot par aspiration).
20 On laisse incuber la membrane dans un tampon radioactif (^{32}P (10 mCi/ml, Amersham-Biosciences) 2M ; Tris 50 mM ; pH 8,0)

La membrane est rapidement rincée 2×1 min dans un tampon Tris 50 mM, pH 8,0. En exposant un film photographique avec la membrane (environ 45 min) on peut détecter les zones qui fixent le phosphate radioactif (voir Figure 3 ci-après).

25 La présente invention concerne également une séquence nucléotidique codant pour une protéine telle que définie ci-dessus.

La présente invention concerne également un vecteur recombinant, notamment plasmide, cosmide, phage ou ADN de virus, contenant une séquence nucléotidique telle que définie ci-dessus.

30 Selon un mode de réalisation avantageux, la présente invention concerne un vecteur recombinant tel que défini ci-dessus, contenant les éléments nécessaires à l'expression dans une cellule hôte des polypeptides codés par la séquence nucléotidique telle que définie ci-dessus, insérée dans ledit vecteur.

La présente invention concerne plus particulièrement l'utilisation d'une protéine telle que définie ci-dessus, notamment SEQ ID NO : 2 ou SEQ ID NO : 3, dans le cadre de la prévention ou du traitement des maladies cardiovasculaires.

5 La présente invention concerne également l'utilisation d'une protéine selon l'invention, notamment de la protéine représentée par la séquence SEQ ID NO : 2 ou SEQ ID NO : 3, en association avec une protéine telle qu'un variant de la protéine paraoxonase, dans le cadre de la prophylaxie ou du traitement des intoxications provoquées par des insecticides ou des agents neurotoxiques, tels que le soman, le VX, le tabun ou le sarin, ou dans le cadre du traitement de l'athérosclérose.

10 La présente invention concerne également un produit de combinaison comprenant au moins une protéine telle que définie ci-dessus, notamment SEQ ID NO : 2 ou SEQ ID NO : 3, et au moins un variant de la protéine paraoxonase, pour une utilisation simultanée, séparée ou étalée dans le temps destiné à la prophylaxie ou au traitement des intoxications provoquées par des insecticides ou des agents neurotoxiques, tels que
15 le soman, le VX, le tabun ou le sarin.

L'utilisation combinée de la protéine de l'invention, notamment SEQ ID NO : 2, avec un variant de la protéine paraoxonase, permet d'accroître la stabilité de la paraoxonase, notamment dans le cadre de la prophylaxie ou du traitement des intoxications provoquées par des insecticides ou des agents neurotoxiques.

20 La présente invention concerne également une méthode de dosage de la protéine telle que définie ci-dessus, caractérisée en ce qu'elle comprend les étapes suivantes :

– des anticorps monoclonaux de lapin dirigé contre différents épitopes de la protéine de l'invention (anti-HPB) sont fixés sur une plaque et le sérum humain à analyser contenant ladite protéine (HPB) est déposé sur la plaque susmentionnée,

25 – la plaque est rincée et lavée,
– on dépose sur la plaque des anticorps anti-anticorps de lapin (anti-Ig rabbit-per) marqués avec de la peroxydase durant 30 minutes, afin de former un complexe ternaire entre un anticorps monoclonal de lapin, la protéine selon l'invention et un anticorps anti-anticorps de lapin susmentionnés (anti-HPB – HPB – anti-Ig rabbit-per),

30 – la plaque est rincée et lavée,
– on fait réagir la peroxydase fixée sur la plaque avec son substrat (kit disponible en commerce, Chemiluminescent Peroxidase Substrate (Sigma)) et la réaction est arrêtée au bout de 30 minutes avec la 3,3',5,5'-tétraméthylbenzidine (TMB, Sigma),

plaques d'athéromes, ou au diagnostic *in vitro* d'une prédisposition d'un individu au développement d'une des maladies susmentionnées.

La présente invention concerne également l'application telle que définie ci-dessus au diagnostic *in vitro* de maladies liées à une hypophosphatémie, ou au diagnostic *in vitro* d'une prédisposition d'un individu au développement de ces maladies.

Parmi les signes cliniques ou physiologiques caractérisant les maladies liées à une hypophosphatémie, on peut citer :

- une déminéralisation des os,
- les manifestations musculaires de l'hypophosphatémie qui comportent une myopathie proximale affectant le muscle squelettique et une dysphagie et un iléus affectant les muscles lisses,
- des carences cardiopulmonaires par le manque d'ATP, et
- une encéphalopathie métabolique.

PARTIE EXPÉRIMENTALE

Isolation de la protéine

La protéine SEQ ID NO : 2 est obtenue à partir du plasma humain selon le procédé de Gan et *al.* (1991) suivant :

La protéine SEQ ID NO : 2 est purifiée à partir de poches de plasma congelé (~200 ml) fournies par l'Etablissement de Transfusion Sanguine de Lyon-Beynost. Le caillot de fibrine, formé par l'ajout de 1 M (1% v/v) de CaCl_2 au plasma est séparé du sérum par filtration. Le sérum est alors mélangé à 400 ml de Gel d'affinité (Cibacron 3GA-Agarose, C-1535, Sigma) équilibré avec un tampon A (Tris/HCl 50 mM, CaCl_2 1mM, NaCl 4M, pH 8). Dans ces conditions, principalement les HDL ("high density lipoprotein" : lipoprotéines de haute densité) sont adsorbées. Après 6 à 8 heures d'incubation, les protéines non adsorbées sur le gel sont éliminées par filtration sur fritté de porosité n°2. Ce lavage s'effectue jusqu'à ce que l'on ne détecte plus de protéine dans l'éluat (absorption UV à 280 nm). Le gel est ensuite équilibré avec un tampon B (Tris/HCl 50 mM, CaCl_2 1mM, pH 8) puis placé en colonne XK 50/30 (Pharmacia). L'élution est réalisée en rajoutant 1g/l de déoxycholate de sodium et 0,1% de triton X-100 au tampon B. Les fractions montrant une activité arylestérase sont injectées sur 50 ml d'un gel échangeur d'anions (DEAE Sepharose Fast Flow, Pharmacia) disposé en colonne XK 26/70 (Pharmacia) et équilibré avec le tampon B et 0,05% de triton X-100. L'élution se fait par gradient de NaCl. Un premier palier est réalisé à 87,5 mM de NaCl afin d'éliminer l'apo A-I, une protéine liée à la paraoxonase, et la majorité des protéines contaminantes. La paraoxonase humaine (PON1) est environ élue à la concentration de 140 mM de NaCl. Toutes les fractions conservées montrent une activité paraoxonase et arylestérase, ces activités étant vérifiées selon les tests mentionnés plus loin. Les fractions éluées ne sont pas regroupées. Les gels SDS-PAGE des fractions obtenues montrent des bandes comprises entre 38 kDa et 45 kDa (voir Figure 1). Chaque purification n'apporte pas toujours la même distribution de masse apparente. Cette légère hétérogénéité peut s'expliquer par la présence de 2 chaînes glycosylées sur la PON1.

En plus de la PON1 dans ces lots une autre protéine a été isolée par cristallisation, en substituant le triton par le C12-maltoside et en utilisant le sulfate d'ammonium comme agent précipitant. Les cristaux obtenus sont ceux d'une protéine inconnue caractérisée par radiocristallographie et correspondant à la séquence SEQ ID NO : 2 de

En raison de la très bonne qualité des cartes de densité électronique, la séquence primaire de la protéine a pu être assignée avec 80% de fiabilité. Une molécule de phosphate a aussi pu être localisée.

La structure obtenue ne correspond pas du tout à la paraoxonase humaine. Le séquençage obtenu en identifiant les acides aminés à partir de la densité électronique indique que ni cette protéine humaine ni son gène n'ont été décrits auparavant. Il s'agit donc d'une nouvelle protéine.

La structure de la protéine de l'invention montre une très forte homologie avec la protéine de fixation du phosphate ("phosphate binding") d'*Escherichia coli*. Cette protéine chez cette bactérie sert à transporter le phosphate à travers le périplasme. On la retrouve chez beaucoup de procaryotes mais chez aucun eucaryote.

La densité électronique a aussi montré qu'une molécule de phosphate était fixée à la nouvelle protéine de l'invention, de la même façon que dans celle d'*Escherichia coli*.

Ainsi, on peut conclure que la protéine de l'invention caractérisée à partir du plasma humain présente une très forte homologie avec la protéine bactérienne et qu'elle est capable de fixer le phosphate et de le transporter.

Séquençage

Digestion dans le gel

Le mélange paraoxonase-HPBP a été séparé par gel électrophorétique avec SDS-PAGE (sans chauffage). Plusieurs bandes correspondant à HPBP aux alentours de 70 kDa ont été découpées.

La digestion de la protéine contenue dans ces bandes a été effectuée grâce au système automatique de digestion, MassPrep Station (Waters Manchester, G.B.). Les bandes de gel ont été lavées deux fois avec 50 µl d'une solution à 25 mM de carbonate d'ammonium hydrogéné (NH_4HCO_3) et 50 µl d'acétonitrile. Les cystéines ont été réduites avec 50 µl d'une solution à 10mM de dithiothréitol à 57°C et acylées avec 50 µl de iodocacétamide à 55 mM. Après déshydratation avec l'acétonitrile, la protéine a été digérée enzymatiquement avec 10 µl de trypsine porcine modifiée à 12,5 ng/µl (Promega, Madison, WI, U.S.A) ou bien avec lys-C de *Lysobacter enzymogenes* (Roche Applied Science, Penzberg, Germany) dans 25 mM de NH_4HCO_3 . La digestion s'est opérée une nuit complète à température ambiante. Les peptides clivés ont été extraits avec une solution à 60% d'acétonitrile et 5% d'acide formique.

L'acquisition des données de masse a été pilotée par le programme MassLynx (Micromass, Manchester, G.B.) qui bascule automatiquement entre le mode MS et le mode MS/MS.

Les spectres MS/MS générés ont été individuellement séquencés *de novo* afin d'obtenir la séquence partielle ou complète. Ces interprétations ont été réalisées en utilisant le programme PepSeq (MassLynx, Micromass) et le programme PEAKS Studio (Bioinformatics Solutions, Waterloo, Canada) qui sont capables de traiter complètement un fichier .pkl avec un séquençage *de novo* automatique sur chaque spectre MS/MS.

Fixation du phosphate

La fixation du phosphate par la protéine de l'invention SEQ ID NO : 2 a été mise en évidence selon le test suivant :

On dépose 200 µl de la protéine de l'invention SEQ ID NO : 2 (colonnes A-F de la Figure 3), ou du lysozyme 1 mg/ml (colonne G) ou de la βlacto-globuline sur nitrocellulose (dot blot par aspiration).

L'ensemble est incubé pendant 2 h 30 dans un mélange comprenant : tris 50 mM ; pH 8,0 ; ³²P (10 mCi/ml) 2 mM.

On effectue ensuite un rinçage 2 fois pendant 1 minute avec du tris 50 mM à pH 8,0, puis on expose l'ensemble à température ambiante pendant 45 minutes.

On constate alors (voir Figure 3) que la protéine de l'invention a fixé le phosphate radioactif (colonnes A à F), alors que les témoins tests ne l'ont pas fixée (colonnes G et H).

Rôle et utilisation de la protéine SEQ ID NO : 2

Pour doser la concentration de cette protéine dans le plasma les méthodes utilisables sont :

- les méthodes électrophorétiques,
- la purification de la protéine,
- la quantification de son activité,
- l'immunodosage de la protéine en utilisant des anticorps polyclonaux/monoclonaux dirigé contre la protéine.

RÉFÉRENCES BIBLIOGRAPHIQUES

- Amann K., Tornig J., Kugel B., Gross M.L., Tyralla K., El-Shakmak A., Szabo A., Ritz E. (2003) *Kidney Int.* **63**(4): 1296-1301 ;
- 5 – Blazheevich N.V., Spirichev V.B., Pozdniakov A.L. (1975) *Kardiologiia.* **15**(6): 67-71 ;
- Brunger A.T., Adams P.D., Clore G.M., Delano W.L., Gros P., Grosse-Kunstleve R.W., Jiang J.-S., Kuszewski J., Nilges N., Pannu N.S., Read R.J., Rice L.M., Simonson T. et Warren G.L. (1998) *Acta Cryst.* **D54**: 905-921 ;
- 10 – Dorozhkin S.V., Epple M. (2002) *Angew Chem Int Ed Engl.* **41**(17): 3130-46 ;
- Engvall E., Jonsson K., Perlmann P. (1971) *Biochim Biophys Acta.* (1971) **251**: 427-34 ;
- Fokine A., Morales R., Contreras-Martel C., Carpentier P., Renault F., Rochu D., Chabriere E. (2003) *Acta Crystallogr D.* **59**, 2083-7 ;
- 15 – Gan, K.N., Smolen, A., Eckerson, H.W. & La Du, B.N. (1991). *Drug Metab Dispos.* **19**, 100-106 ;
- Hassett, C., Richter, R.J., Humbert, R., Chapline, C., Crabb, J.W., Omiecinski, C.J. et Furlong, C.E. (1991) *Biochemistry* **30**(42), 10141-10149 ;
- Kabsch W. (1993) *J. Appl. Cryst.* **26**: 795-800 ;
- 20 – Perrakis, A., Sixma, T. K., Wilson, K.S., et Lamzin, V. S. (1997) *Acta Cryst.* **D53**: 448–455 ;
- Primo-Parmo, S.L., Sorenson, R.C., Teiber, J. et La Du, B.N. (1996) *Genomics* **33**(3), 498-507 ;
- Ramsdell R. (1999) *Anna J.* **26**(3): 346-7 ;
- 25 – Reddy, S.T., Wadleigh, D.J., Grijalva, V., Ng, C., Hama, S., Gangopadhyay, A., Khorsan, R., Shih, D., Lusi, A.J., Navab, M. et Fogelman, A.M. (2001) *Arterioscler Thromb Vasc Biol* **21**(4) : 542-7 ;
- Rodrigo, L., Gil, F., Hernandez, A.F., Marina, A., Vazquez, J. et Pla, A. (1997) *Biochem. J.* **321**, 595-601 ;
- 30 – Smolen A, Eckerson HW, Gan KN, Hailat N, La Du BN. (1991) *Drug Metab Dispos.*, **19**: 107-112 ;
- Sorenson, R.C., Primo-Parmo, S.L., Kuo, C.L., Adkins, S., Lockridge, O. et La Du, B.N. (1995) *Proc. Natl. Acad. Sci. U.S.A.* **92**(16), 7187-7191 ;
- Weeks, C.M. & Miller, R. (1999) *J. Appl. Cryst.* **32**, 120-124.

5. Vecteur recombinant selon la revendication 4, contenant les éléments nécessaires à l'expression dans une cellule hôte des polypeptides codés par une séquence nucléotidique selon la revendication 3, insérés dans ledit vecteur.

6. Cellule hôte, choisie notamment parmi les bactéries, les levures, les cellules de champignons, les cellules de plantes ou les cellules de mammifères, ladite cellule hôte étant transformée à l'aide d'un vecteur recombinant selon l'une des revendications 4 ou 5.

7. Composition pharmaceutique comprenant à titre de substance active une protéine selon la revendication 1 ou 2, en association avec un véhicule pharmaceutiquement acceptable.

8. Composition pharmaceutique selon la revendication 7, comprenant à titre de substance active une protéine représentée par la séquence SEQ ID NO : 2 ou SEQ ID NO : 3.

9. Composition pharmaceutique selon la revendication 8, dans laquelle la protéine telle que définie dans la revendication 1 ou 2, notamment SEQ ID NO : 2 ou SEQ ID NO : 3, est en association avec un variant de la protéine paraoxonase, notamment SEQ ID NO : 4, SEQ ID NO : 5, SEQ ID NO : 6, SEQ ID NO : 7, SEQ ID NO : 8, SEQ ID NO : 9, SEQ ID NO : 10 ou SEQ ID NO : 11.

10. Utilisation d'une protéine selon la revendication 1 ou 2, notamment de la protéine représentée par la séquence SEQ ID NO : 2 ou SEQ ID NO : 3, pour la préparation d'un médicament destiné à la prévention ou au traitement de l'arthrite ou de maladies liées à une hyperphosphatémie, telles que les maladies cardiovasculaires, ou, en association avec un variant de la protéine paraoxonase, notamment SEQ ID NO : 4, SEQ ID NO : 5, SEQ ID NO : 6, SEQ ID NO : 7, SEQ ID NO : 8, SEQ ID NO : 9, SEQ ID NO : 10 ou SEQ ID NO : 11, dans le cadre de la prophylaxie ou du traitement des intoxications provoquées par des insecticides ou des agents neurotoxiques tels que le soman, le VX, le sarin ou le tabun, ou dans le cadre du traitement de l'athérosclérose.

au diagnostic *in vitro* de maladies liées à une hypophosphatémie notamment lorsque la quantité de protéine selon la revendication 1 ou 2, notamment SEQ ID NO : 2 ou SEQ ID NO : 3, dosée selon la méthode de la revendication 12, est supérieure à la quantité de cette protéine normalement présente dans le sang d'un individu sain, ou
5 au diagnostic *in vitro* d'une prédisposition d'un individu à de telles pathologies.

14. Application selon la revendication 13 au diagnostic *in vitro* de maladies liées à une hyperphosphatémie telles que les maladies cardiovasculaires, notamment les maladies cardiovasculaires liées à la formation de plaques d'athéromes, ou au
10 diagnostic *in vitro* d'une prédisposition d'un individu au développement d'une des maladies susmentionnées.

15. Application selon la revendication 14 au diagnostic *in vitro* de maladies liées à une hypophosphatémie, ou au diagnostic *in vitro* d'une prédisposition d'un
15 individu au développement de ces maladies.

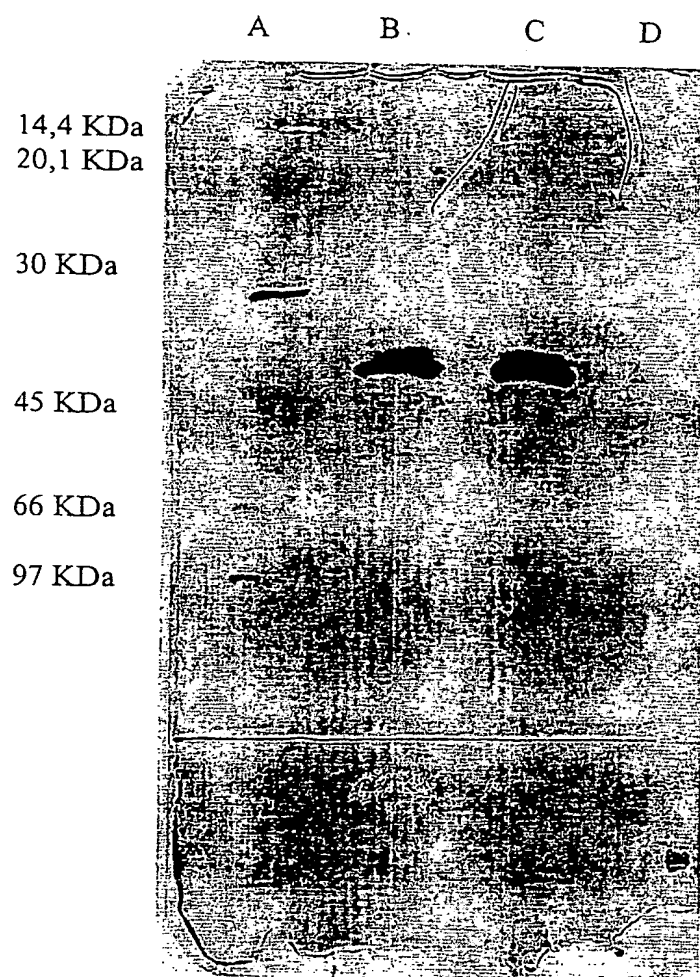


FIGURE 1

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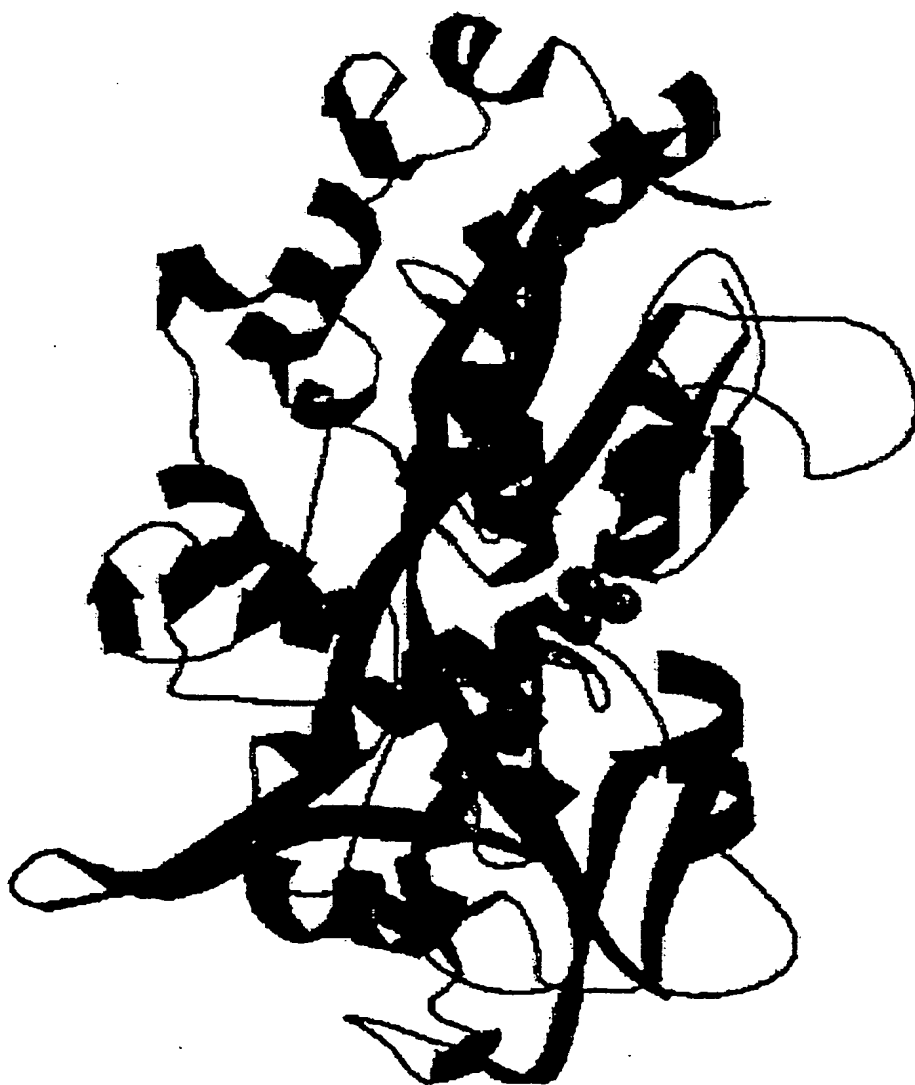


FIGURE 2

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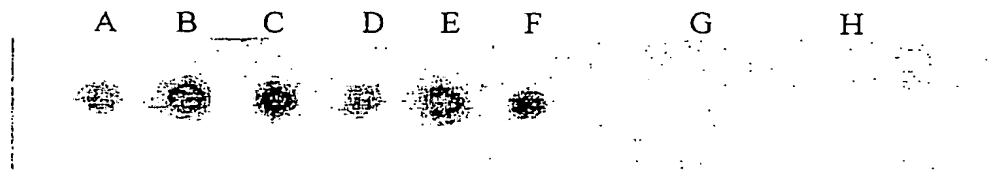


FIGURE 3

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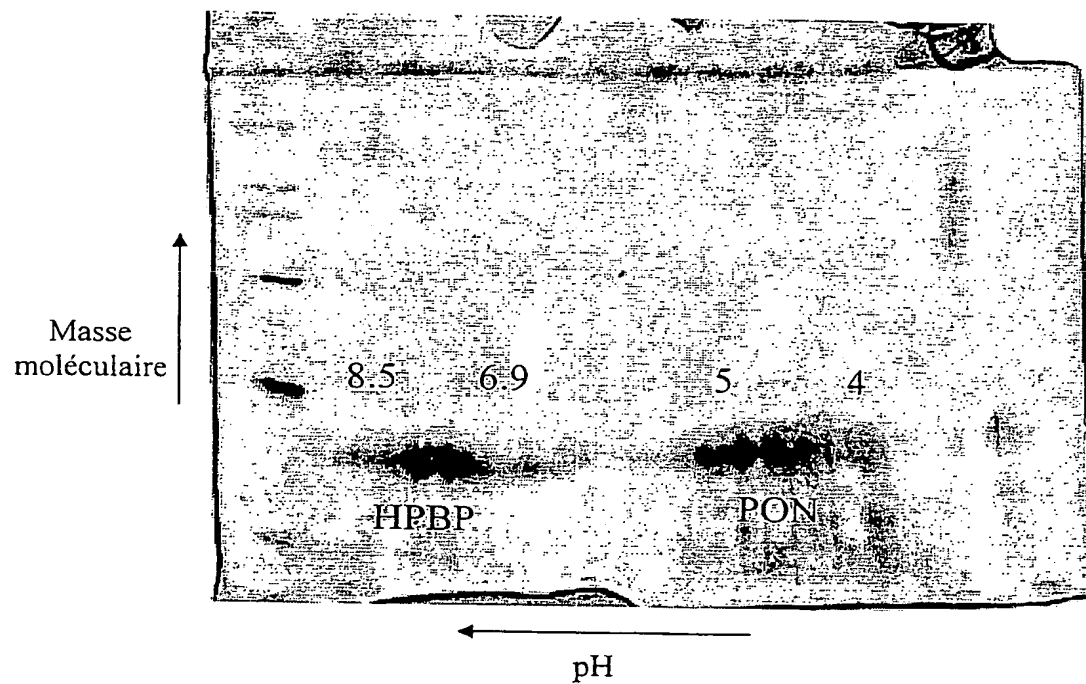


FIGURE 4

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ATOM	1	CB	SER	A	1	24.666	45.653	14.370	1.00	26.15	A
ATOM	2	OG	SER	A	1	25.258	46.028	13.130	1.00	38.82	A
ATOM	3	C	SER	A	1	22.519	45.324	15.622	1.00	20.30	A
ATOM	4	O	SER	A	1	21.889	46.093	16.367	1.00	18.83	A
ATOM	5	N	SER	A	1	22.817	47.273	14.074	1.00	22.37	A
ATOM	6	CA	SER	A	1	23.146	45.831	14.317	1.00	22.87	A
ATOM	7	N	ILE	A	2	22.676	44.027	15.878	1.00	14.00	A
ATOM	8	CA	ILE	A	2	22.149	43.401	17.092	1.00	13.36	A
ATOM	9	CB	ILE	A	2	21.747	41.923	16.828	1.00	14.04	A
ATOM	10	CG2	ILE	A	2	21.536	41.191	18.155	1.00	9.05	A
ATOM	11	CG1	ILE	A	2	20.458	41.872	15.988	1.00	13.38	A
ATOM	12	CD1	ILE	A	2	20.173	40.501	15.357	1.00	14.27	A
ATOM	13	C	ILE	A	2	23.303	43.459	18.083	1.00	12.32	A
ATOM	14	O	ILE	A	2	24.376	42.890	17.847	1.00	14.26	A
ATOM	15	N	ASP	A	3	23.075	44.122	19.205	1.00	13.19	A
ATOM	16	CA	ASP	A	3	24.134	44.331	20.193	1.00	11.15	A
ATOM	17	CB	ASP	A	3	24.149	45.830	20.578	1.00	12.52	A
ATOM	18	CG	ASP	A	3	24.268	46.744	19.351	1.00	11.70	A
ATOM	19	OD1	ASP	A	3	25.289	46.618	18.642	1.00	11.97	A
ATOM	20	OD2	ASP	A	3	23.356	47.569	19.094	1.00	13.82	A
ATOM	21	C	ASP	A	3	23.981	43.508	21.456	1.00	11.88	A
ATOM	22	O	ASP	A	3	22.947	43.577	22.116	1.00	11.48	A
ATOM	23	N	GLY	A	4	25.022	42.763	21.800	1.00	9.46	A
ATOM	24	CA	GLY	A	4	24.973	41.947	23.007	1.00	10.97	A
ATOM	25	C	GLY	A	4	26.303	41.966	23.740	1.00	8.48	A
ATOM	26	O	GLY	A	4	27.314	42.413	23.200	1.00	9.87	A
ATOM	27	N	GLY	A	5	26.296	41.496	24.987	1.00	11.77	A
ATOM	28	CA	GLY	A	5	27.511	41.489	25.785	1.00	4.85	A
ATOM	29	C	GLY	A	5	27.163	41.000	27.186	1.00	8.06	A
ATOM	30	O	GLY	A	5	26.009	40.610	27.447	1.00	9.13	A
ATOM	31	N	GLY	A	6	28.144	41.021	28.089	1.00	9.80	A
ATOM	32	CA	GLY	A	6	27.898	40.589	29.458	1.00	9.86	A
ATOM	33	C	GLY	A	6	28.970	39.679	30.014	1.00	7.11	A
ATOM	34	O	GLY	A	6	30.150	40.030	30.000	1.00	8.89	A
ATOM	35	N	ALA	A	7	28.567	38.518	30.525	1.00	9.08	A
ATOM	36	CA	ALA	A	7	29.509	37.540	31.079	1.00	8.69	A
ATOM	37	CB	ALA	A	7	28.814	36.168	31.195	1.00	7.94	A
ATOM	38	C	ALA	A	7	30.811	37.363	30.277	1.00	9.69	A
ATOM	39	O	ALA	A	7	30.781	37.212	29.050	1.00	7.30	A
ATOM	40	N	THR	A	8	31.941	37.367	30.981	1.00	7.56	A
ATOM	41	CA	THR	A	8	33.236	37.135	30.338	1.00	7.21	A
ATOM	42	CB	THR	A	8	34.402	37.865	31.065	1.00	8.00	A
ATOM	43	OG1	THR	A	8	34.532	37.344	32.402	1.00	9.83	A
ATOM	44	CG2	THR	A	8	34.123	39.388	31.139	1.00	10.68	A
ATOM	45	C	THR	A	8	33.542	35.624	30.340	1.00	5.67	A
ATOM	46	O	THR	A	8	34.355	35.168	29.552	1.00	8.00	A
ATOM	47	N	LEU	A	9	32.885	34.842	31.195	1.00	6.65	A
ATOM	48	CA	LEU	A	9	33.190	33.389	31.224	1.00	9.98	A
ATOM	49	CB	LEU	A	9	32.275	32.649	32.238	1.00	10.55	A
ATOM	50	CG	LEU	A	9	32.400	31.109	32.271	1.00	11.53	A
ATOM	51	CD1	LEU	A	9	32.200	30.566	33.699	1.00	10.77	A
ATOM	52	CD2	LEU	A	9	31.356	30.503	31.300	1.00	6.94	A
ATOM	53	C	LEU	A	9	33.103	32.755	29.817	1.00	10.91	A
ATOM	54	O	LEU	A	9	33.985	31.970	29.421	1.00	9.67	A
ATOM	55	N	PRO	A	10	32.051	33.088	29.040	1.00	6.59	A
ATOM	56	CD	PRO	A	10	30.763	33.664	29.485	1.00	8.09	A
ATOM	57	CA	PRO	A	10	31.915	32.521	27.686	1.00	7.68	A
ATOM	58	CB	PRO	A	10	30.428	32.218	27.611	1.00	11.73	A
ATOM	59	CG	PRO	A	10	29.845	33.467	28.251	1.00	8.40	A
ATOM	60	C	PRO	A	10	32.317	33.504	26.579	1.00	8.72	A
ATOM	61	O	PRO	A	10	32.040	33.263	25.396	1.00	9.01	A
ATOM	62	N	GLU	A	11	33.003	34.589	26.928	1.00	5.35	A
ATOM	63	CA	GLU	A	11	33.325	35.565	25.896	1.00	8.04	A
ATOM	64	CB	GLU	A	11	33.978	36.829	26.493	1.00	12.60	A
ATOM	65	CG	GLU	A	11	35.380	36.672	27.001	1.00	21.32	A
ATOM	66	CD	GLU	A	11	35.994	38.013	27.391	1.00	26.61	A
ATOM	67	OE1	GLU	A	11	35.264	38.873	27.920	1.00	30.93	A
ATOM	68	OE2	GLU	A	11	37.203	38.202	27.176	1.00	31.32	A
ATOM	69	C	GLU	A	11	34.143	35.066	24.709	1.00	10.00	A
ATOM	70	O	GLU	A	11	33.866	35.464	23.563	1.00	8.68	A
ATOM	71	N	LYS	A	12	35.134	34.215	24.957	1.00	8.65	A
ATOM	72	CA	LYS	A	12	35.935	33.678	23.850	1.00	10.43	A
ATOM	73	CB	LYS	A	12	37.081	32.840	24.374	1.00	11.05	A
ATOM	74	CG	LYS	A	12	38.151	33.646	25.090	1.00	9.26	A
ATOM	75	CD	LYS	A	12	39.117	32.622	25.673	1.00	17.64	A

FIGURE 5

ATOM	76	CE	LYS	A	12	40.293	33.277	26.307	1.00	24.93	A
ATOM	77	NZ	LYS	A	12	41.298	32.237	26.600	1.00	25.96	A
ATOM	78	C	LYS	A	12	35.079	32.830	22.934	1.00	11.17	A
ATOM	79	O	LYS	A	12	35.339	32.726	21.736	1.00	8.79	A
ATOM	80	N	LEU	A	13	34.071	32.176	23.498	1.00	7.67	A
ATOM	81	CA	LEU	A	13	33.189	31.383	22.669	1.00	10.04	A
ATOM	82	CB	LEU	A	13	32.230	30.549	23.534	1.00	8.86	A
ATOM	83	CG	LEU	A	13	31.082	29.888	22.769	1.00	8.97	A
ATOM	84	CD1	LEU	A	13	31.649	28.807	21.805	1.00	12.12	A
ATOM	85	CD2	LEU	A	13	30.101	29.268	23.753	1.00	12.69	A
ATOM	86	C	LEU	A	13	32.371	32.292	21.750	1.00	9.01	A
ATOM	87	O	LEU	A	13	32.293	32.064	20.536	1.00	10.60	A
ATOM	88	N	TYR	A	14	31.761	33.329	22.305	1.00	10.47	A
ATOM	89	CA	TYR	A	14	30.920	34.195	21.482	1.00	9.03	A
ATOM	90	CB	TYR	A	14	30.029	35.087	22.352	1.00	8.38	A
ATOM	91	CG	TYR	A	14	29.091	34.293	23.253	1.00	11.48	A
ATOM	92	CD1	TYR	A	14	28.499	33.109	22.806	1.00	12.01	A
ATOM	93	CE1	TYR	A	14	27.671	32.341	23.642	1.00	10.45	A
ATOM	94	CD2	TYR	A	14	28.824	34.706	24.564	1.00	10.30	A
ATOM	95	CE2	TYR	A	14	27.998	33.948	25.403	1.00	10.35	A
ATOM	96	CZ	TYR	A	14	27.430	32.766	24.933	1.00	8.21	A
ATOM	97	OH	TYR	A	14	26.628	32.014	25.757	1.00	8.65	A
ATOM	98	C	TYR	A	14	31.715	35.036	20.489	1.00	9.67	A
ATOM	99	O	TYR	A	14	31.142	35.538	19.515	1.00	8.36	A
ATOM	100	N	LEU	A	15	33.021	35.184	20.738	1.00	8.53	A
ATOM	101	CA	LEU	A	15	33.904	35.936	19.838	1.00	9.45	A
ATOM	102	CB	LEU	A	15	35.087	36.564	20.601	1.00	8.09	A
ATOM	103	CG	LEU	A	15	34.742	37.802	21.433	1.00	14.85	A
ATOM	104	CD1	LEU	A	15	35.932	38.141	22.306	1.00	16.07	A
ATOM	105	CD2	LEU	A	15	34.364	38.990	20.510	1.00	12.61	A
ATOM	106	C	LEU	A	15	34.467	35.018	18.756	1.00	16.00	A
ATOM	107	O	LEU	A	15	35.174	35.466	17.859	1.00	16.13	A
ATOM	108	N	THR	A	16	34.178	33.729	18.848	1.00	11.70	A
ATOM	109	CA	THR	A	16	34.681	32.791	17.853	1.00	11.09	A
ATOM	110	CB	THR	A	16	34.523	31.334	18.371	1.00	11.33	A
ATOM	111	OG1	THR	A	16	35.406	31.142	19.484	1.00	13.08	A
ATOM	112	CG2	THR	A	16	34.848	30.314	17.291	1.00	11.23	A
ATOM	113	C	THR	A	16	33.906	32.997	16.549	1.00	12.10	A
ATOM	114	O	THR	A	16	32.671	32.996	16.540	1.00	12.20	A
ATOM	115	N	PRO	A	17	34.620	33.158	15.420	1.00	14.18	A
ATOM	116	CD	PRO	A	17	36.085	33.162	15.251	1.00	14.83	A
ATOM	117	CA	PRO	A	17	33.933	33.367	14.137	1.00	17.90	A
ATOM	118	CB	PRO	A	17	35.068	33.292	13.113	1.00	20.97	A
ATOM	119	CG	PRO	A	17	36.251	33.842	13.890	1.00	21.64	A
ATOM	120	C	PRO	A	17	32.830	32.341	13.854	1.00	14.42	A
ATOM	121	O	PRO	A	17	33.027	31.143	14.066	1.00	14.18	A
ATOM	122	N	ASP	A	18	31.673	32.836	13.414	1.00	15.17	A
ATOM	123	CA	ASP	A	18	30.515	32.020	13.058	1.00	19.19	A
ATOM	124	CB	ASP	A	18	30.932	30.829	12.169	1.00	23.04	A
ATOM	125	CG	ASP	A	18	31.649	31.260	10.885	1.00	30.30	A
ATOM	126	OD1	ASP	A	18	31.214	32.238	10.239	1.00	30.86	A
ATOM	127	OD2	ASP	A	18	32.645	30.599	10.511	1.00	39.65	A
ATOM	128	C	ASP	A	18	29.657	31.479	14.212	1.00	13.08	A
ATOM	129	O	ASP	A	18	28.651	30.833	13.958	1.00	13.28	A
ATOM	130	N	VAL	A	19	30.041	31.709	15.466	1.00	13.07	A
ATOM	131	CA	VAL	A	19	29.199	31.221	16.570	1.00	8.94	A
ATOM	132	CB	VAL	A	19	29.976	31.225	17.911	1.00	9.65	A
ATOM	133	CG1	VAL	A	19	29.014	31.123	19.098	1.00	11.73	A
ATOM	134	CG2	VAL	A	19	30.930	30.026	17.923	1.00	11.99	A
ATOM	135	C	VAL	A	19	27.971	32.126	16.613	1.00	11.81	A
ATOM	136	O	VAL	A	19	26.829	31.655	16.707	1.00	11.21	A
ATOM	137	N	LEU	A	20	28.198	33.434	16.567	1.00	10.93	A
ATOM	138	CA	LEU	A	20	27.077	34.363	16.486	1.00	8.58	A
ATOM	139	CB	LEU	A	20	27.439	35.730	17.084	1.00	13.44	A
ATOM	140	CG	LEU	A	20	27.677	35.767	18.601	1.00	14.24	A
ATOM	141	CD1	LEU	A	20	27.863	37.222	19.084	1.00	13.26	A
ATOM	142	CD2	LEU	A	20	26.480	35.130	19.315	1.00	11.94	A
ATOM	143	C	LEU	A	20	26.857	34.470	14.969	1.00	15.21	A
ATOM	144	O	LEU	A	20	27.836	34.550	14.196	1.00	11.72	A
ATOM	145	N	THR	A	21	25.596	34.455	14.540	1.00	14.05	A
ATOM	146	CA	THR	A	21	25.268	34.511	13.114	1.00	12.27	A
ATOM	147	CB	THR	A	21	24.006	33.653	12.865	1.00	16.46	A
ATOM	148	OG1	THR	A	21	22.966	34.044	13.774	1.00	13.53	A
ATOM	149	CG2	THR	A	21	24.326	32.173	13.121	1.00	17.80	A
ATOM	150	C	THR	A	21	25.121	35.937	12.509	1.00	14.67	A
ATOM	151	O	THR	A	21	25.452	36.928	13.148	1.00	12.04	A

FIGURE 5 (suite)

ATOM	152	N	ALA	A	22	24.663	36.037	11.265	1.00	12.98	A
ATOM	153	CA	ALA	A	22	24.523	37.335	10.594	1.00	12.25	A
ATOM	154	CB	ALA	A	22	23.913	37.146	9.208	1.00	15.06	A
ATOM	155	C	ALA	A	22	23.749	38.418	11.337	1.00	10.99	A
ATOM	156	O	ALA	A	22	22.688	38.174	11.916	1.00	15.12	A
ATOM	157	N	GLY	A	23	24.285	39.636	11.292	1.00	13.67	A
ATOM	158	CA	GLY	A	23	23.631	40.753	11.951	1.00	14.86	A
ATOM	159	C	GLY	A	23	24.068	41.057	13.371	1.00	14.29	A
ATOM	160	O	GLY	A	23	23.775	42.138	13.894	1.00	15.41	A
ATOM	161	N	PHE	A	24	24.760	40.116	14.001	1.00	12.44	A
ATOM	162	CA	PHE	A	24	25.238	40.283	15.363	1.00	14.48	A
ATOM	163	CB	PHE	A	24	25.424	38.899	16.020	1.00	9.89	A
ATOM	164	CG	PHE	A	24	24.156	38.276	16.527	1.00	12.35	A
ATOM	165	CD1	PHE	A	24	23.225	37.734	15.644	1.00	6.46	A
ATOM	166	CD2	PHE	A	24	23.888	38.237	17.898	1.00	12.73	A
ATOM	167	CE1	PHE	A	24	22.035	37.153	16.125	1.00	11.12	A
ATOM	168	CE2	PHE	A	24	22.695	37.662	18.397	1.00	7.42	A
ATOM	169	CZ	PHE	A	24	21.772	37.118	17.502	1.00	11.79	A
ATOM	170	C	PHE	A	24	26.584	41.030	15.444	1.00	14.36	A
ATOM	171	O	PHE	A	24	27.569	40.592	14.850	1.00	12.41	A
ATOM	172	N	ALA	A	25	26.630	42.141	16.183	1.00	14.60	A
ATOM	173	CA	ALA	A	25	27.881	42.875	16.378	1.00	13.54	A
ATOM	174	CB	ALA	A	25	27.606	44.233	17.024	1.00	15.19	A
ATOM	175	C	ALA	A	25	28.752	42.031	17.315	1.00	12.48	A
ATOM	176	O	ALA	A	25	28.240	41.155	18.023	1.00	12.61	A
ATOM	177	N	PRO	A	26	30.067	42.289	17.348	1.00	11.27	A
ATOM	178	CD	PRO	A	26	30.837	43.202	16.476	1.00	13.96	A
ATOM	179	CA	PRO	A	26	30.952	41.507	18.231	1.00	12.70	A
ATOM	180	CB	PRO	A	26	32.334	42.117	17.989	1.00	14.99	A
ATOM	181	CG	PRO	A	26	32.241	42.582	16.519	1.00	19.22	A
ATOM	182	C	PRO	A	26	30.536	41.602	19.699	1.00	10.57	A
ATOM	183	O	PRO	A	26	30.222	42.681	20.192	1.00	10.54	A
ATOM	184	N	TYR	A	27	30.529	40.456	20.367	1.00	8.04	A
ATOM	185	CA	TYR	A	27	30.161	40.345	21.793	1.00	9.13	A
ATOM	186	CB	TYR	A	27	30.294	38.886	22.231	1.00	8.74	A
ATOM	187	CG	TYR	A	27	29.824	38.612	23.648	1.00	5.12	A
ATOM	188	CD1	TYR	A	27	28.469	38.512	23.938	1.00	6.81	A
ATOM	189	CE1	TYR	A	27	28.024	38.224	25.247	1.00	9.00	A
ATOM	190	CD2	TYR	A	27	30.741	38.423	24.682	1.00	5.70	A
ATOM	191	CE2	TYR	A	27	30.310	38.131	25.992	1.00	7.78	A
ATOM	192	CZ	TYR	A	27	28.948	38.032	26.259	1.00	9.36	A
ATOM	193	OH	TYR	A	27	28.502	37.709	27.532	1.00	8.37	A
ATOM	194	C	TYR	A	27	31.081	41.207	22.675	1.00	10.49	A
ATOM	195	O	TYR	A	27	32.297	41.207	22.494	1.00	9.91	A
ATOM	196	N	ILE	A	28	30.510	41.931	23.635	1.00	8.97	A
ATOM	197	CA	ILE	A	28	31.324	42.765	24.517	1.00	12.31	A
ATOM	198	CB	ILE	A	28	30.801	44.225	24.521	1.00	13.61	A
ATOM	199	CG2	ILE	A	28	31.657	45.098	25.459	1.00	13.95	A
ATOM	200	CG1	ILE	A	28	30.871	44.793	23.095	1.00	11.91	A
ATOM	201	CD1	ILE	A	28	30.192	46.146	22.915	1.00	12.92	A
ATOM	202	C	ILE	A	28	31.333	42.191	25.942	1.00	13.14	A
ATOM	203	O	ILE	A	28	30.315	42.189	26.622	1.00	8.79	A
ATOM	204	N	GLY	A	29	32.499	41.706	26.373	1.00	13.23	A
ATOM	205	CA	GLY	A	29	32.630	41.105	27.695	1.00	15.83	A
ATOM	206	C	GLY	A	29	32.868	42.127	28.791	1.00	16.10	A
ATOM	207	O	GLY	A	29	33.915	42.794	28.826	1.00	12.27	A
ATOM	208	N	THR	A	30	31.900	42.234	29.697	1.00	8.70	A
ATOM	209	CA	THR	A	30	31.966	43.200	30.783	1.00	10.71	A
ATOM	210	CB	THR	A	30	31.061	44.442	30.473	1.00	11.83	A
ATOM	211	OG1	THR	A	30	29.703	44.014	30.222	1.00	16.91	A
ATOM	212	CG2	THR	A	30	31.607	45.235	29.249	1.00	8.83	A
ATOM	213	C	THR	A	30	31.538	42.640	32.147	1.00	11.78	A
ATOM	214	O	THR	A	30	31.532	43.378	33.135	1.00	11.34	A
ATOM	215	N	GLY	A	31	31.187	41.352	32.210	1.00	10.41	A
ATOM	216	CA	GLY	A	31	30.729	40.789	33.473	1.00	8.40	A
ATOM	217	C	GLY	A	31	29.208	40.604	33.467	1.00	9.64	A
ATOM	218	O	GLY	A	31	28.478	41.396	32.862	1.00	8.01	A
ATOM	219	N	SER	A	32	28.718	39.566	34.138	1.00	7.93	A
ATOM	220	CA	SER	A	32	27.274	39.297	34.143	1.00	4.39	A
ATOM	221	CB	SER	A	32	26.961	37.954	34.832	1.00	2.86	A
ATOM	222	OG	SER	A	32	27.538	36.876	34.125	1.00	6.73	A
ATOM	223	C	SER	A	32	26.440	40.386	34.793	1.00	7.61	A
ATOM	224	O	SER	A	32	25.321	40.626	34.354	1.00	9.70	A
ATOM	225	N	GLY	A	33	26.984	41.052	35.811	1.00	8.20	A
ATOM	226	CA	GLY	A	33	26.256	42.121	36.506	1.00	6.91	A

FIGURE 5 (suite)

ATOM	227	C	GLY	A	33	25.942	43.235	35.524	1.00	9.16	A
ATOM	228	O	GLY	A	33	24.799	43.708	35.429	1.00	9.95	A
ATOM	229	N	LYS	A	34	26.943	43.633	34.749	1.00	10.60	A
ATOM	230	CA	LYS	A	34	26.710	44.681	33.753	1.00	8.52	A
ATOM	231	CB	LYS	A	34	28.040	45.240	33.250	1.00	7.07	A
ATOM	232	CG	LYS	A	34	28.667	46.220	34.250	1.00	12.80	A
ATOM	233	CD	LYS	A	34	29.957	46.854	33.703	1.00	10.66	A
ATOM	234	CE	LYS	A	34	30.597	47.768	34.748	1.00	10.90	A
ATOM	235	NZ	LYS	A	34	29.700	48.890	35.066	1.00	23.47	A
ATOM	236	C	LYS	A	34	25.848	44.201	32.601	1.00	12.94	A
ATOM	237	O	LYS	A	34	25.070	44.977	32.043	1.00	9.59	A
ATOM	238	N	GLY	A	35	25.983	42.928	32.236	1.00	9.69	A
ATOM	239	CA	GLY	A	35	25.158	42.386	31.162	1.00	7.50	A
ATOM	240	C	GLY	A	35	23.677	42.414	31.542	1.00	9.68	A
ATOM	241	O	GLY	A	35	22.831	42.767	30.717	1.00	9.00	A
ATOM	242	N	LYS	A	36	23.340	42.077	32.787	1.00	8.56	A
ATOM	243	CA	LYS	A	36	21.929	42.089	33.173	1.00	7.26	A
ATOM	244	CB	LYS	A	36	21.709	41.393	34.533	1.00	9.15	A
ATOM	245	CG	LYS	A	36	21.954	39.861	34.445	1.00	5.28	A
ATOM	246	CD	LYS	A	36	21.394	39.069	35.662	1.00	6.85	A
ATOM	247	CE	LYS	A	36	21.990	39.576	36.986	1.00	11.53	A
ATOM	248	NZ	LYS	A	36	21.397	38.945	38.221	1.00	11.99	A
ATOM	249	C	LYS	A	36	21.409	43.527	33.204	1.00	11.18	A
ATOM	250	O	LYS	A	36	20.311	43.787	32.724	1.00	14.03	A
ATOM	251	N	ILE	A	37	22.190	44.459	33.749	1.00	9.12	A
ATOM	252	CA	ILE	A	37	21.752	45.854	33.766	1.00	11.15	A
ATOM	253	CB	ILE	A	37	22.778	46.779	34.462	1.00	10.46	A
ATOM	254	CG2	ILE	A	37	22.424	48.252	34.197	1.00	11.32	A
ATOM	255	CG1	ILE	A	37	22.774	46.522	35.972	1.00	9.50	A
ATOM	256	CD1	ILE	A	37	24.024	47.029	36.669	1.00	15.62	A
ATOM	257	C	ILE	A	37	21.563	46.368	32.325	1.00	11.78	A
ATOM	258	O	ILE	A	37	20.570	47.017	32.018	1.00	11.36	A
ATOM	259	N	ALA	A	38	22.518	46.071	31.452	1.00	9.31	A
ATOM	260	CA	ALA	A	38	22.438	46.539	30.063	1.00	10.19	A
ATOM	261	CB	ALA	A	38	23.650	46.016	29.269	1.00	10.93	A
ATOM	262	C	ALA	A	38	21.129	46.102	29.375	1.00	9.69	A
ATOM	263	O	ALA	A	38	20.447	46.899	28.712	1.00	8.41	A
ATOM	264	N	PHE	A	39	20.771	44.831	29.541	1.00	8.70	A
ATOM	265	CA	PHE	A	39	19.566	44.327	28.914	1.00	9.40	A
ATOM	266	CB	PHE	A	39	19.549	42.787	28.888	1.00	9.06	A
ATOM	267	CG	PHE	A	39	18.287	42.214	28.270	1.00	7.16	A
ATOM	268	CD1	PHE	A	39	18.223	41.953	26.896	1.00	8.56	A
ATOM	269	CD2	PHE	A	39	17.146	42.000	29.051	1.00	8.19	A
ATOM	270	CE1	PHE	A	39	17.035	41.481	26.306	1.00	9.12	A
ATOM	271	CE2	PHE	A	39	15.947	41.530	28.479	1.00	9.01	A
ATOM	272	CZ	PHE	A	39	15.888	41.269	27.101	1.00	8.28	A
ATOM	273	C	PHE	A	39	18.304	44.790	29.608	1.00	12.15	A
ATOM	274	O	PHE	A	39	17.398	45.313	28.972	1.00	10.76	A
ATOM	275	N	LEU	A	40	18.246	44.602	30.920	1.00	8.71	A
ATOM	276	CA	LEU	A	40	17.034	44.938	31.678	1.00	8.94	A
ATOM	277	CB	LEU	A	40	17.204	44.513	33.144	1.00	7.80	A
ATOM	278	CG	LEU	A	40	17.342	43.005	33.400	1.00	10.06	A
ATOM	279	CD1	LEU	A	40	17.809	42.781	34.887	1.00	6.45	A
ATOM	280	CD2	LEU	A	40	16.006	42.296	33.132	1.00	12.55	A
ATOM	281	C	LEU	A	40	16.626	46.403	31.632	1.00	10.63	A
ATOM	282	O	LEU	A	40	15.430	46.730	31.629	1.00	11.89	A
ATOM	283	N	GLU	A	41	17.604	47.291	31.586	1.00	10.88	A
ATOM	284	CA	GLU	A	41	17.294	48.717	31.551	1.00	9.10	A
ATOM	285	CB	GLU	A	41	18.053	49.436	32.669	1.00	13.20	A
ATOM	286	CG	GLU	A	41	17.802	48.829	34.036	1.00	11.00	A
ATOM	287	CD	GLU	A	41	18.671	49.429	35.131	1.00	22.54	A
ATOM	288	OE1	GLU	A	41	18.975	48.713	36.103	1.00	27.36	A
ATOM	289	OE2	GLU	A	41	19.037	50.616	35.043	1.00	22.49	A
ATOM	290	C	GLU	A	41	17.633	49.361	30.218	1.00	12.72	A
ATOM	291	O	GLU	A	41	17.505	50.576	30.066	1.00	13.60	A
ATOM	292	N	ASN	A	42	18.010	48.537	29.238	1.00	11.74	A
ATOM	293	CA	ASN	A	42	18.463	49.008	27.923	1.00	11.79	A
ATOM	294	CB	ASN	A	42	17.322	49.494	27.022	1.00	14.08	A
ATOM	295	CG	ASN	A	42	17.824	49.897	25.642	1.00	16.54	A
ATOM	296	OD1	ASN	A	42	18.885	49.428	25.189	1.00	15.67	A
ATOM	297	ND2	ASN	A	42	17.076	50.763	24.960	1.00	14.22	A
ATOM	298	C	ASN	A	42	19.486	50.126	28.091	1.00	16.68	A
ATOM	299	O	ASN	A	42	19.300	51.260	27.631	1.00	14.27	A
ATOM	300	N	SER	A	43	20.578	49.789	28.767	1.00	14.51	A

FIGURE 5 (suite)

ATOM	301	CA	SER	A	43	21.665	50.740	29.001	1.00	14.54	A
ATOM	302	CB	SER	A	43	21.920	50.874	30.520	1.00	19.90	A
ATOM	303	OG	SER	A	43	20.922	51.662	31.162	1.00	26.26	A
ATOM	304	C	SER	A	43	22.965	50.327	28.302	1.00	13.78	A
ATOM	305	O	SER	A	43	23.790	49.633	28.891	1.00	10.60	A
ATOM	306	N	TYR	A	44	23.168	50.755	27.056	1.00	9.73	A
ATOM	307	CA	TYR	A	44	24.396	50.401	26.361	1.00	10.86	A
ATOM	308	CB	TYR	A	44	24.330	50.880	24.904	1.00	10.54	A
ATOM	309	CG	TYR	A	44	25.414	50.311	24.034	1.00	12.22	A
ATOM	310	CD1	TYR	A	44	26.631	50.983	23.857	1.00	12.57	A
ATOM	311	CE1	TYR	A	44	27.625	50.469	23.011	1.00	10.91	A
ATOM	312	CD2	TYR	A	44	25.217	49.106	23.357	1.00	10.34	A
ATOM	313	CE2	TYR	A	44	26.201	48.587	22.517	1.00	11.21	A
ATOM	314	CZ	TYR	A	44	27.394	49.267	22.347	1.00	14.12	A
ATOM	315	OH	TYR	A	44	28.357	48.725	21.524	1.00	11.54	A
ATOM	316	C	TYR	A	44	25.650	50.971	27.026	1.00	8.02	A
ATOM	317	O	TYR	A	44	26.775	50.515	26.756	1.00	10.36	A
ATOM	318	N	ASN	A	45	25.484	51.941	27.917	1.00	8.55	A
ATOM	319	CA	ASN	A	45	26.657	52.547	28.535	1.00	14.36	A
ATOM	320	CB	ASN	A	45	26.271	53.811	29.337	1.00	8.69	A
ATOM	321	CG	ASN	A	45	25.707	53.503	30.708	1.00	11.69	A
ATOM	322	OD1	ASN	A	45	25.048	52.488	30.910	1.00	13.56	A
ATOM	323	ND2	ASN	A	45	25.934	54.411	31.655	1.00	14.48	A
ATOM	324	C	ASN	A	45	27.423	51.535	29.388	1.00	13.91	A
ATOM	325	O	ASN	A	45	28.573	51.781	29.755	1.00	11.13	A
ATOM	326	N	GLN	A	46	26.788	50.393	29.681	1.00	8.83	A
ATOM	327	CA	GLN	A	46	27.462	49.337	30.435	1.00	11.62	A
ATOM	328	CB	GLN	A	46	26.421	48.390	31.080	1.00	10.13	A
ATOM	329	CG	GLN	A	46	25.487	49.076	32.083	1.00	14.66	A
ATOM	330	CD	GLN	A	46	26.259	49.792	33.170	1.00	18.72	A
ATOM	331	OE1	GLN	A	46	26.983	49.165	33.937	1.00	18.65	A
ATOM	332	NE2	GLN	A	46	26.133	51.116	33.228	1.00	16.99	A
ATOM	333	C	GLN	A	46	28.408	48.543	29.491	1.00	10.06	A
ATOM	334	O	GLN	A	46	29.275	47.818	29.956	1.00	10.43	A
ATOM	335	N	PHE	A	47	28.232	48.691	28.174	1.00	8.72	A
ATOM	336	CA	PHE	A	47	29.055	48.025	27.148	1.00	7.46	A
ATOM	337	CB	PHE	A	47	28.191	47.487	25.992	1.00	7.56	A
ATOM	338	CG	PHE	A	47	27.271	46.349	26.366	1.00	12.11	A
ATOM	339	CD1	PHE	A	47	27.433	45.651	27.559	1.00	11.35	A
ATOM	340	CD2	PHE	A	47	26.268	45.945	25.474	1.00	14.21	A
ATOM	341	CE1	PHE	A	47	26.616	44.567	27.861	1.00	9.31	A
ATOM	342	CE2	PHE	A	47	25.442	44.859	25.761	1.00	9.84	A
ATOM	343	CZ	PHE	A	47	25.617	44.167	26.959	1.00	10.19	A
ATOM	344	C	PHE	A	47	30.053	48.988	26.484	1.00	12.94	A
ATOM	345	O	PHE	A	47	31.109	48.580	26.022	1.00	14.11	A
ATOM	346	N	GLY	A	48	29.677	50.257	26.378	1.00	11.49	A
ATOM	347	CA	GLY	A	48	30.551	51.222	25.731	1.00	13.51	A
ATOM	348	C	GLY	A	48	30.027	52.642	25.833	1.00	15.44	A
ATOM	349	O	GLY	A	48	28.999	52.908	26.459	1.00	16.60	A
ATOM	350	N	THR	A	49	30.722	53.566	25.187	1.00	14.37	A
ATOM	351	CA	THR	A	49	30.333	54.967	25.256	1.00	13.58	A
ATOM	352	CB	THR	A	49	31.576	55.843	25.161	1.00	14.46	A
ATOM	353	OG1	THR	A	49	32.234	55.567	23.924	1.00	15.00	A
ATOM	354	CG2	THR	A	49	32.558	55.524	26.322	1.00	13.17	A
ATOM	355	C	THR	A	49	29.301	55.436	24.216	1.00	14.30	A
ATOM	356	O	THR	A	49	28.716	56.511	24.370	1.00	12.47	A
ATOM	357	N	ASN	A	50	29.062	54.659	23.162	1.00	13.09	A
ATOM	358	CA	ASN	A	50	28.076	55.116	22.173	1.00	14.85	A
ATOM	359	CB	ASN	A	50	28.324	54.519	20.785	1.00	15.63	A
ATOM	360	CG	ASN	A	50	27.379	55.096	19.739	1.00	18.88	A
ATOM	361	OD1	ASN	A	50	26.472	55.883	20.059	1.00	19.28	A
ATOM	362	ND2	ASN	A	50	27.574	54.707	18.489	1.00	19.28	A
ATOM	363	C	ASN	A	50	26.669	54.751	22.615	1.00	14.82	A
ATOM	364	O	ASN	A	50	26.099	53.739	22.187	1.00	14.58	A
ATOM	365	N	THR	A	51	26.097	55.608	23.443	1.00	13.25	A
ATOM	366	CA	THR	A	51	24.782	55.377	23.988	1.00	15.77	A
ATOM	367	CB	THR	A	51	24.595	56.210	25.242	1.00	17.96	A
ATOM	368	OG1	THR	A	51	24.937	57.574	24.973	1.00	16.18	A
ATOM	369	CG2	THR	A	51	25.506	55.684	26.332	1.00	18.64	A
ATOM	370	C	THR	A	51	23.581	55.539	23.053	1.00	18.71	A
ATOM	371	O	THR	A	51	22.440	55.436	23.512	1.00	19.68	A
ATOM	372	N	THR	A	52	23.820	55.795	21.761	1.00	16.82	A
ATOM	373	CA	THR	A	52	22.702	55.865	20.827	1.00	19.67	A
ATOM	374	CB	THR	A	52	23.017	56.666	19.524	1.00	22.55	A
ATOM	375	OG1	THR	A	52	24.028	56.006	18.744	1.00	22.57	A

FIGURE 5 (suite)

ATOM	376	CG2	THR	A	52	23.460	58.081	19.875	1.00	21.07	A
ATOM	377	C	THR	A	52	22.342	54.428	20.446	1.00	17.92	A
ATOM	378	O	THR	A	52	21.270	54.175	19.905	1.00	17.96	A
ATOM	379	N	LYS	A	53	23.238	53.488	20.740	1.00	14.41	A
ATOM	380	CA	LYS	A	53	22.978	52.080	20.427	1.00	12.53	A
ATOM	381	CB	LYS	A	53	24.292	51.292	20.406	1.00	14.33	A
ATOM	382	CG	LYS	A	53	25.207	51.573	19.213	1.00	17.93	A
ATOM	383	CD	LYS	A	53	26.478	50.731	19.324	1.00	18.20	A
ATOM	384	CE	LYS	A	53	27.477	51.052	18.214	1.00	21.01	A
ATOM	385	NZ	LYS	A	53	26.908	50.784	16.865	1.00	22.67	A
ATOM	386	C	LYS	A	53	22.045	51.470	21.474	1.00	12.72	A
ATOM	387	O	LYS	A	53	22.075	51.869	22.635	1.00	11.93	A
ATOM	388	N	ASP	A	54	21.223	50.499	21.064	1.00	13.58	A
ATOM	389	CA	ASP	A	54	20.298	49.826	21.982	1.00	10.96	A
ATOM	390	CB	ASP	A	54	18.887	49.745	21.380	1.00	12.81	A
ATOM	391	CG	ASP	A	54	18.249	51.107	21.218	1.00	19.07	A
ATOM	392	OD1	ASP	A	54	18.010	51.529	20.059	1.00	17.31	A
ATOM	393	OD2	ASP	A	54	17.997	51.759	22.260	1.00	15.46	A
ATOM	394	C	ASP	A	54	20.819	48.416	22.246	1.00	8.44	A
ATOM	395	O	ASP	A	54	21.505	47.637	21.407	1.00	14.56	A
ATOM	396	N	VAL	A	55	20.485	47.875	23.411	1.00	12.75	A
ATOM	397	CA	VAL	A	55	20.919	46.541	23.799	1.00	12.22	A
ATOM	398	CB	VAL	A	55	21.150	46.486	25.328	1.00	7.89	A
ATOM	399	CG1	VAL	A	55	21.596	45.057	25.775	1.00	7.35	A
ATOM	400	CG2	VAL	A	55	22.229	47.518	25.707	1.00	6.23	A
ATOM	401	C	VAL	A	55	19.840	45.540	23.386	1.00	9.36	A
ATOM	402	O	VAL	A	55	18.659	45.768	23.630	1.00	11.95	A
ATOM	403	N	HIS	A	56	20.258	44.441	22.755	1.00	9.82	A
ATOM	404	CA	HIS	A	56	19.323	43.432	22.285	1.00	8.89	A
ATOM	405	CB	HIS	A	56	19.552	43.218	20.782	1.00	8.33	A
ATOM	406	CG	HIS	A	56	19.455	44.485	19.985	1.00	9.48	A
ATOM	407	CD2	HIS	A	56	20.414	45.264	19.430	1.00	11.14	A
ATOM	408	ND1	HIS	A	56	18.255	45.121	19.738	1.00	13.82	A
ATOM	409	CE1	HIS	A	56	18.483	46.236	19.064	1.00	12.14	A
ATOM	410	NE2	HIS	A	56	19.783	46.345	18.866	1.00	12.83	A
ATOM	411	C	HIS	A	56	19.389	42.097	23.033	1.00	9.87	A
ATOM	412	O	HIS	A	56	18.419	41.331	23.039	1.00	8.84	A
ATOM	413	N	TRP	A	57	20.531	41.797	23.649	1.00	10.03	A
ATOM	414	CA	TRP	A	57	20.618	40.535	24.385	1.00	12.07	A
ATOM	415	CB	TRP	A	57	20.753	39.340	23.430	1.00	7.72	A
ATOM	416	CG	TRP	A	57	22.078	39.288	22.673	1.00	9.96	A
ATOM	417	CD2	TRP	A	57	23.188	38.398	22.935	1.00	8.55	A
ATOM	418	CE2	TRP	A	57	24.161	38.642	21.945	1.00	7.37	A
ATOM	419	CE3	TRP	A	57	23.442	37.413	23.914	1.00	9.79	A
ATOM	420	CD1	TRP	A	57	22.430	40.021	21.570	1.00	9.43	A
ATOM	421	NE1	TRP	A	57	23.685	39.637	21.124	1.00	7.89	A
ATOM	422	CZ2	TRP	A	57	25.381	37.936	21.895	1.00	8.66	A
ATOM	423	CZ3	TRP	A	57	24.647	36.713	23.862	1.00	7.59	A
ATOM	424	CH2	TRP	A	57	25.605	36.982	22.852	1.00	13.66	A
ATOM	425	C	TRP	A	57	21.830	40.575	25.286	1.00	9.35	A
ATOM	426	O	TRP	A	57	22.648	41.481	25.179	1.00	9.06	A
ATOM	427	N	ALA	A	58	21.945	39.579	26.159	1.00	6.35	A
ATOM	428	CA	ALA	A	58	23.081	39.523	27.061	1.00	8.26	A
ATOM	429	CB	ALA	A	58	22.755	40.280	28.362	1.00	10.03	A
ATOM	430	C	ALA	A	58	23.471	38.101	27.407	1.00	7.97	A
ATOM	431	O	ALA	A	58	22.638	37.207	27.401	1.00	9.27	A
ATOM	432	N	GLY	A	59	24.749	37.908	27.702	1.00	9.58	A
ATOM	433	CA	GLY	A	59	25.213	36.608	28.184	1.00	7.09	A
ATOM	434	C	GLY	A	59	25.342	36.791	29.695	1.00	9.23	A
ATOM	435	O	GLY	A	59	25.779	37.846	30.159	1.00	10.14	A
ATOM	436	N	SER	A	60	24.938	35.801	30.484	1.00	5.73	A
ATOM	437	CA	SER	A	60	25.058	35.917	31.938	1.00	5.95	A
ATOM	438	CB	SER	A	60	23.815	36.613	32.535	1.00	10.17	A
ATOM	439	OG	SER	A	60	23.896	36.707	33.966	1.00	9.12	A
ATOM	440	C	SER	A	60	25.161	34.540	32.566	1.00	8.54	A
ATOM	441	O	SER	A	60	24.437	33.632	32.146	1.00	9.12	A
ATOM	442	N	ASP	A	61	26.067	34.376	33.536	1.00	9.30	A
ATOM	443	CA	ASP	A	61	26.132	33.124	34.292	1.00	8.23	A
ATOM	444	CB	ASP	A	61	27.543	32.485	34.381	1.00	6.13	A
ATOM	445	CG	ASP	A	61	28.600	33.266	33.649	1.00	13.41	A
ATOM	446	OD1	ASP	A	61	28.869	32.961	32.449	1.00	10.15	A
ATOM	447	OD2	ASP	A	61	29.150	34.191	34.281	1.00	13.11	A
ATOM	448	C	ASP	A	61	25.597	33.456	35.710	1.00	10.77	A
ATOM	449	O	ASP	A	61	25.818	32.716	36.658	1.00	11.14	A
ATOM	450	N	SER	A	62	24.914	34.595	35.833	1.00	7.59	A
ATOM	451	CA	SER	A	62	24.213	34.995	37.067	1.00	10.29	A

FIGURE 5 (suite)

ATOM	452	CB	SER	A	62	24.522	36.437	37.497	1.00	11.42	A
ATOM	453	OG	SER	A	62	23.631	36.832	38.549	1.00	11.94	A
ATOM	454	C	SER	A	62	22.721	34.944	36.706	1.00	10.70	A
ATOM	455	O	SER	A	62	22.274	35.605	35.745	1.00	9.88	A
ATOM	456	N	LYS	A	63	21.944	34.168	37.449	1.00	8.95	A
ATOM	457	CA	LYS	A	63	20.519	34.089	37.137	1.00	10.67	A
ATOM	458	CB	LYS	A	63	19.834	32.996	37.959	1.00	16.43	A
ATOM	459	CG	LYS	A	63	20.046	31.605	37.461	1.00	15.34	A
ATOM	460	CD	LYS	A	63	19.148	30.619	38.201	1.00	19.94	A
ATOM	461	CE	LYS	A	63	17.702	30.671	37.728	1.00	16.96	A
ATOM	462	NZ	LYS	A	63	16.903	29.498	38.239	1.00	14.00	A
ATOM	463	C	LYS	A	63	19.786	35.392	37.399	1.00	12.40	A
ATOM	464	O	LYS	A	63	20.192	36.183	38.257	1.00	10.37	A
ATOM	465	N	LEU	A	64	18.699	35.604	36.659	1.00	7.10	A
ATOM	466	CA	LEU	A	64	17.863	36.778	36.842	1.00	9.01	A
ATOM	467	CB	LEU	A	64	16.824	36.871	35.716	1.00	6.27	A
ATOM	468	CG	LEU	A	64	17.447	37.378	34.405	1.00	7.74	A
ATOM	469	CD1	LEU	A	64	16.586	37.016	33.190	1.00	8.96	A
ATOM	470	CD2	LEU	A	64	17.619	38.883	34.510	1.00	9.78	A
ATOM	471	C	LEU	A	64	17.168	36.569	38.197	1.00	10.06	A
ATOM	472	O	LEU	A	64	16.712	35.465	38.508	1.00	11.86	A
ATOM	473	N	THR	A	65	17.120	37.614	39.012	1.00	6.99	A
ATOM	474	CA	THR	A	65	16.503	37.481	40.334	1.00	11.54	A
ATOM	475	CB	THR	A	65	17.097	38.472	41.341	1.00	13.33	A
ATOM	476	OG1	THR	A	65	16.736	39.811	40.952	1.00	13.29	A
ATOM	477	CG2	THR	A	65	18.644	38.331	41.395	1.00	11.42	A
ATOM	478	C	THR	A	65	15.009	37.751	40.239	1.00	13.06	A
ATOM	479	O	THR	A	65	14.530	38.268	39.233	1.00	9.78	A
ATOM	480	N	ALA	A	66	14.272	37.374	41.281	1.00	11.93	A
ATOM	481	CA	ALA	A	66	12.831	37.607	41.287	1.00	16.82	A
ATOM	482	CB	ALA	A	66	12.231	37.106	42.601	1.00	17.23	A
ATOM	483	C	ALA	A	66	12.527	39.104	41.105	1.00	14.69	A
ATOM	484	O	ALA	A	66	11.587	39.467	40.409	1.00	12.67	A
ATOM	485	N	SER	A	67	13.322	39.962	41.744	1.00	15.98	A
ATOM	486	CA	SER	A	67	13.150	41.417	41.640	1.00	12.48	A
ATOM	487	CB	SER	A	67	14.108	42.166	42.579	1.00	18.87	A
ATOM	488	OG	SER	A	67	13.662	42.081	43.921	1.00	28.18	A
ATOM	489	C	SER	A	67	13.403	41.890	40.212	1.00	12.05	A
ATOM	490	O	SER	A	67	12.630	42.671	39.666	1.00	12.31	A
ATOM	491	N	GLN	A	68	14.495	41.426	39.616	1.00	8.93	A
ATOM	492	CA	GLN	A	68	14.796	41.803	38.237	1.00	8.58	A
ATOM	493	CB	GLN	A	68	16.123	41.176	37.768	1.00	11.33	A
ATOM	494	CG	GLN	A	68	17.343	41.749	38.524	1.00	12.20	A
ATOM	495	CD	GLN	A	68	18.656	41.026	38.242	1.00	15.53	A
ATOM	496	OE1	GLN	A	68	18.690	39.815	38.034	1.00	11.56	A
ATOM	497	NE2	GLN	A	68	19.743	41.770	38.255	1.00	14.33	A
ATOM	498	C	GLN	A	68	13.673	41.385	37.290	1.00	12.61	A
ATOM	499	O	GLN	A	68	13.270	42.158	36.423	1.00	10.84	A
ATOM	500	N	LEU	A	69	13.163	40.164	37.455	1.00	13.81	A
ATOM	501	CA	LEU	A	69	12.093	39.687	36.576	1.00	13.47	A
ATOM	502	CB	LEU	A	69	11.809	38.189	36.829	1.00	13.08	A
ATOM	503	CG	LEU	A	69	12.989	37.268	36.496	1.00	14.83	A
ATOM	504	CD1	LEU	A	69	12.772	35.862	37.071	1.00	16.18	A
ATOM	505	CD2	LEU	A	69	13.140	37.233	34.981	1.00	11.50	A
ATOM	506	C	LEU	A	69	10.810	40.484	36.778	1.00	13.14	A
ATOM	507	O	LEU	A	69	10.138	40.860	35.814	1.00	13.07	A
ATOM	508	N	ALA	A	70	10.465	40.728	38.034	1.00	12.61	A
ATOM	509	CA	ALA	A	70	9.227	41.443	38.328	1.00	12.01	A
ATOM	510	CB	ALA	A	70	8.951	41.453	39.841	1.00	13.19	A
ATOM	511	C	ALA	A	70	9.275	42.852	37.785	1.00	12.44	A
ATOM	512	O	ALA	A	70	8.297	43.334	37.240	1.00	16.48	A
ATOM	513	N	THR	A	71	10.419	43.512	37.928	1.00	12.49	A
ATOM	514	CA	THR	A	71	10.574	44.865	37.436	1.00	11.47	A
ATOM	515	CB	THR	A	71	11.914	45.463	37.941	1.00	18.09	A
ATOM	516	OG1	THR	A	71	11.834	45.621	39.370	1.00	19.27	A
ATOM	517	CG2	THR	A	71	12.225	46.811	37.267	1.00	13.43	A
ATOM	518	C	THR	A	71	10.501	44.905	35.902	1.00	11.57	A
ATOM	519	O	THR	A	71	9.881	45.800	35.337	1.00	15.24	A
ATOM	520	N	TYR	A	72	11.116	43.941	35.223	1.00	13.13	A
ATOM	521	CA	TYR	A	72	11.049	43.941	33.760	1.00	12.95	A
ATOM	522	CB	TYR	A	72	11.927	42.839	33.174	1.00	11.21	A
ATOM	523	CG	TYR	A	72	12.194	43.011	31.682	1.00	12.14	A
ATOM	524	CD1	TYR	A	72	13.122	43.936	31.224	1.00	11.17	A
ATOM	525	CE1	TYR	A	72	13.376	44.101	29.841	1.00	11.35	A
ATOM	526	CD2	TYR	A	72	11.515	42.239	30.736	1.00	14.03	A
ATOM	527	CE2	TYR	A	72	11.765	42.378	29.372	1.00	8.40	A

FIGURE 5 (suite)

ATOM	528	CZ	TYR	A	72	12.689	43.303	28.928	1.00	10.19	A
ATOM	529	OH	TYR	A	72	12.949	43.425	27.585	1.00	10.75	A
ATOM	530	C	TYR	A	72	9.604	43.705	33.313	1.00	13.42	A
ATOM	531	O	TYR	A	72	9.111	44.346	32.394	1.00	14.74	A
ATOM	532	N	ALA	A	73	8.943	42.763	33.970	1.00	14.68	A
ATOM	533	CA	ALA	A	73	7.563	42.423	33.650	1.00	15.37	A
ATOM	534	CB	ALA	A	73	7.090	41.293	34.556	1.00	10.74	A
ATOM	535	C	ALA	A	73	6.631	43.626	33.791	1.00	14.04	A
ATOM	536	O	ALA	A	73	5.711	43.811	32.992	1.00	13.32	A
ATOM	537	N	ALA	A	74	6.856	44.436	34.815	1.00	16.88	A
ATOM	538	CA	ALA	A	74	6.006	45.602	35.032	1.00	17.08	A
ATOM	539	CB	ALA	A	74	6.082	46.052	36.505	1.00	13.94	A
ATOM	540	C	ALA	A	74	6.354	46.768	34.118	1.00	20.94	A
ATOM	541	O	ALA	A	74	5.475	47.357	33.476	1.00	17.04	A
ATOM	542	N	ASN	A	75	7.645	47.061	34.014	1.00	15.74	A
ATOM	543	CA	ASN	A	75	8.125	48.203	33.241	1.00	17.76	A
ATOM	544	CB	ASN	A	75	9.439	48.712	33.839	1.00	19.52	A
ATOM	545	CG	ASN	A	75	9.308	49.152	35.289	1.00	24.86	A
ATOM	546	OD1	ASN	A	75	10.308	49.485	35.929	1.00	26.13	A
ATOM	547	ND2	ASN	A	75	8.084	49.150	35.816	1.00	27.41	A
ATOM	548	C	ASN	A	75	8.356	48.070	31.741	1.00	18.90	A
ATOM	549	O	ASN	A	75	8.049	48.996	30.986	1.00	16.37	A
ATOM	550	N	LYS	A	76	8.910	46.944	31.304	1.00	13.20	A
ATOM	551	CA	LYS	A	76	9.235	46.810	29.888	1.00	14.05	A
ATOM	552	CB	LYS	A	76	10.709	46.412	29.730	1.00	11.81	A
ATOM	553	CG	LYS	A	76	11.706	47.189	30.561	1.00	15.12	A
ATOM	554	CD	LYS	A	76	11.710	48.673	30.208	1.00	18.17	A
ATOM	555	CE	LYS	A	76	12.942	49.342	30.783	1.00	21.75	A
ATOM	556	NZ	LYS	A	76	12.858	50.832	30.665	1.00	23.76	A
ATOM	557	C	LYS	A	76	8.414	45.835	29.064	1.00	14.89	A
ATOM	558	O	LYS	A	76	8.184	46.053	27.874	1.00	15.18	A
ATOM	559	N	GLN	A	77	7.996	44.746	29.686	1.00	13.65	A
ATOM	560	CA	GLN	A	77	7.240	43.718	28.978	1.00	15.70	A
ATOM	561	CB	GLN	A	77	6.865	42.625	29.964	1.00	14.98	A
ATOM	562	CG	GLN	A	77	6.139	41.438	29.381	1.00	18.91	A
ATOM	563	CD	GLN	A	77	5.848	40.392	30.441	1.00	26.71	A
ATOM	564	OE1	GLN	A	77	6.747	39.965	31.167	1.00	25.14	A
ATOM	565	NE2	GLN	A	77	4.593	39.968	30.534	1.00	21.79	A
ATOM	566	C	GLN	A	77	5.989	44.205	28.222	1.00	16.81	A
ATOM	567	O	GLN	A	77	5.718	43.746	27.114	1.00	17.54	A
ATOM	568	N	PRO	A	78	5.216	45.142	28.800	1.00	19.48	A
ATOM	569	CD	PRO	A	78	5.255	45.765	30.134	1.00	12.68	A
ATOM	570	CA	PRO	A	78	4.023	45.575	28.056	1.00	15.54	A
ATOM	571	CB	PRO	A	78	3.428	46.654	28.958	1.00	19.25	A
ATOM	572	CG	PRO	A	78	3.787	46.150	30.342	1.00	17.82	A
ATOM	573	C	PRO	A	78	4.325	46.080	26.646	1.00	20.10	A
ATOM	574	O	PRO	A	78	3.614	45.748	25.692	1.00	18.30	A
ATOM	575	N	GLY	A	79	5.393	46.860	26.512	1.00	15.27	A
ATOM	576	CA	GLY	A	79	5.745	47.379	25.210	1.00	17.02	A
ATOM	577	C	GLY	A	79	6.802	46.616	24.427	1.00	20.02	A
ATOM	578	O	GLY	A	79	6.839	46.731	23.199	1.00	15.38	A
ATOM	579	N	TRP	A	80	7.639	45.830	25.111	1.00	13.75	A
ATOM	580	CA	TRP	A	80	8.723	45.092	24.440	1.00	14.43	A
ATOM	581	CB	TRP	A	80	10.062	45.359	25.136	1.00	11.39	A
ATOM	582	CG	TRP	A	80	10.549	46.780	25.071	1.00	15.13	A
ATOM	583	CD2	TRP	A	80	11.672	47.329	25.767	1.00	13.37	A
ATOM	584	CE2	TRP	A	80	11.823	48.666	25.332	1.00	13.52	A
ATOM	585	CE3	TRP	A	80	12.573	46.817	26.716	1.00	12.51	A
ATOM	586	CD1	TRP	A	80	10.068	47.779	24.271	1.00	19.04	A
ATOM	587	NE1	TRP	A	80	10.831	48.919	24.418	1.00	16.58	A
ATOM	588	CZ2	TRP	A	80	12.840	49.502	25.812	1.00	15.28	A
ATOM	589	CZ3	TRP	A	80	13.586	47.645	27.197	1.00	13.05	A
ATOM	590	CH2	TRP	A	80	13.710	48.979	26.739	1.00	16.82	A
ATOM	591	C	TRP	A	80	8.560	43.580	24.349	1.00	16.83	A
ATOM	592	O	TRP	A	80	9.361	42.909	23.685	1.00	16.92	A
ATOM	593	N	GLY	A	81	7.562	43.031	25.033	1.00	15.56	A
ATOM	594	CA	GLY	A	81	7.380	41.584	25.001	1.00	11.72	A
ATOM	595	C	GLY	A	81	8.071	40.921	26.186	1.00	13.05	A
ATOM	596	O	GLY	A	81	8.856	41.557	26.894	1.00	8.85	A
ATOM	597	N	LYS	A	82	7.784	39.638	26.395	1.00	10.46	A
ATOM	598	CA	LYS	A	82	8.374	38.882	27.499	1.00	11.96	A
ATOM	599	CB	LYS	A	82	7.702	37.506	27.608	1.00	11.82	A
ATOM	600	CG	LYS	A	82	6.341	37.497	28.315	1.00	12.27	A
ATOM	601	CD	LYS	A	82	5.578	36.167	28.137	1.00	15.83	A
ATOM	602	CE	LYS	A	82	6.296	34.971	28.782	1.00	21.44	A
ATOM	603	NZ	LYS	A	82	6.571	35.179	30.234	1.00	18.30	A

FIGURE 5 (suite)

ATOM	604	C	LYS	A	82	9.868	38.658	27.275	1.00	12.45	A
ATOM	605	O	LYS	A	82	10.313	38.530	26.126	1.00	11.99	A
ATOM	606	N	LEU	A	83	10.649	38.598	28.357	1.00	10.87	A
ATOM	607	CA	LEU	A	83	12.057	38.305	28.161	1.00	10.47	A
ATOM	608	CB	LEU	A	83	12.955	38.929	29.248	1.00	16.59	A
ATOM	609	CG	LEU	A	83	13.059	38.501	30.707	1.00	13.98	A
ATOM	610	CD1	LEU	A	83	13.627	37.083	30.856	1.00	13.97	A
ATOM	611	CD2	LEU	A	83	14.010	39.508	31.412	1.00	12.95	A
ATOM	612	C	LEU	A	83	12.191	36.790	28.142	1.00	8.84	A
ATOM	613	O	LEU	A	83	11.288	36.062	28.604	1.00	12.14	A
ATOM	614	N	ILE	A	84	13.294	36.330	27.567	1.00	9.04	A
ATOM	615	CA	ILE	A	84	13.606	34.912	27.467	1.00	7.94	A
ATOM	616	CB	ILE	A	84	13.734	34.492	25.986	1.00	11.27	A
ATOM	617	CG2	ILE	A	84	14.322	33.075	25.875	1.00	15.02	A
ATOM	618	CG1	ILE	A	84	12.356	34.567	25.306	1.00	13.46	A
ATOM	619	CD1	ILE	A	84	12.407	34.310	23.806	1.00	10.66	A
ATOM	620	C	ILE	A	84	14.957	34.682	28.151	1.00	9.44	A
ATOM	621	O	ILE	A	84	15.918	35.410	27.891	1.00	9.33	A
ATOM	622	N	GLU	A	85	15.018	33.686	29.023	1.00	7.70	A
ATOM	623	CA	GLU	A	85	16.269	33.331	29.683	1.00	8.79	A
ATOM	624	CB	GLU	A	85	16.211	33.631	31.196	1.00	7.98	A
ATOM	625	CG	GLU	A	85	17.532	33.291	31.922	1.00	8.35	A
ATOM	626	CD	GLU	A	85	17.472	33.466	33.442	1.00	9.44	A
ATOM	627	OE1	GLU	A	85	16.520	32.969	34.103	1.00	13.35	A
ATOM	628	OE2	GLU	A	85	18.408	34.077	33.998	1.00	10.18	A
ATOM	629	C	GLU	A	85	16.452	31.832	29.442	1.00	9.15	A
ATOM	630	O	GLU	A	85	15.614	31.047	29.870	1.00	10.73	A
ATOM	631	N	VAL	A	86	17.513	31.438	28.733	1.00	9.15	A
ATOM	632	CA	VAL	A	86	17.772	30.021	28.458	1.00	9.61	A
ATOM	633	CB	VAL	A	86	17.394	29.631	26.987	1.00	8.48	A
ATOM	634	CG1	VAL	A	86	15.866	29.641	26.795	1.00	11.82	A
ATOM	635	CG2	VAL	A	86	18.062	30.587	25.998	1.00	8.25	A
ATOM	636	C	VAL	A	86	19.247	29.653	28.653	1.00	12.36	A
ATOM	637	O	VAL	A	86	20.135	30.490	28.488	1.00	7.65	A
ATOM	638	N	PRO	A	87	19.530	28.392	29.034	1.00	7.50	A
ATOM	639	CD	PRO	A	87	18.611	27.261	29.245	1.00	11.19	A
ATOM	640	CA	PRO	A	87	20.927	27.986	29.213	1.00	8.03	A
ATOM	641	CE	PRO	A	87	20.806	26.551	29.747	1.00	11.47	A
ATOM	642	CG	PRO	A	87	19.531	26.065	29.123	1.00	18.08	A
ATOM	643	C	PRO	A	87	21.551	28.031	27.803	1.00	12.05	A
ATOM	644	O	PRO	A	87	20.845	27.799	26.798	1.00	11.64	A
ATOM	645	N	SER	A	88	22.844	28.346	27.739	1.00	10.05	A
ATOM	646	CA	SER	A	88	23.607	28.427	26.480	1.00	8.91	A
ATOM	647	CB	SER	A	88	24.472	29.695	26.471	1.00	6.92	A
ATOM	648	OG	SER	A	88	25.266	29.787	25.294	1.00	11.36	A
ATOM	649	C	SER	A	88	24.484	27.177	26.379	1.00	7.85	A
ATOM	650	O	SER	A	88	24.385	26.432	25.401	1.00	7.71	A
ATOM	651	N	VAL	A	89	25.365	26.993	27.368	1.00	7.73	A
ATOM	652	CA	VAL	A	89	26.218	25.802	27.481	1.00	8.66	A
ATOM	653	CB	VAL	A	89	27.639	26.010	26.874	1.00	5.11	A
ATOM	654	CG1	VAL	A	89	27.522	26.503	25.400	1.00	7.72	A
ATOM	655	CG2	VAL	A	89	28.444	27.016	27.744	1.00	8.02	A
ATOM	656	C	VAL	A	89	26.407	25.527	28.980	1.00	10.90	A
ATOM	657	O	VAL	A	89	26.037	26.356	29.809	1.00	9.82	A
ATOM	658	N	ALA	A	90	26.982	24.369	29.325	1.00	10.64	A
ATOM	659	CA	ALA	A	90	27.242	24.059	30.722	1.00	8.29	A
ATOM	660	CB	ALA	A	90	26.792	22.616	31.077	1.00	8.16	A
ATOM	661	C	ALA	A	90	28.764	24.190	30.863	1.00	7.63	A
ATOM	662	O	ALA	A	90	29.498	24.095	29.880	1.00	7.66	A
ATOM	663	N	THR	A	91	29.233	24.345	32.091	1.00	7.77	A
ATOM	664	CA	THR	A	91	30.651	24.559	32.300	1.00	9.18	A
ATOM	665	CB	THR	A	91	30.945	26.074	32.165	1.00	10.09	A
ATOM	666	OG1	THR	A	91	32.337	26.323	32.365	1.00	11.79	A
ATOM	667	CG2	THR	A	91	30.156	26.862	33.214	1.00	11.41	A
ATOM	668	C	THR	A	91	31.116	24.140	33.686	1.00	10.91	A
ATOM	669	O	THR	A	91	30.326	24.055	34.614	1.00	9.96	A
ATOM	670	N	SER	A	92	32.409	23.858	33.811	1.00	11.52	A
ATOM	671	CA	SER	A	92	32.972	23.598	35.122	1.00	9.75	A
ATOM	672	CB	SER	A	92	34.167	22.642	35.011	1.00	12.03	A
ATOM	673	OG	SER	A	92	35.213	23.181	34.186	1.00	10.62	A
ATOM	674	C	SER	A	92	33.490	24.962	35.601	1.00	10.73	A
ATOM	675	O	SER	A	92	33.397	25.974	34.883	1.00	8.53	A
ATOM	676	N	VAL	A	93	33.980	25.003	36.837	1.00	8.68	A
ATOM	677	CA	VAL	A	93	34.640	26.197	37.369	1.00	7.08	A
ATOM	678	CB	VAL	A	93	34.010	26.736	38.667	1.00	7.09	A
ATOM	679	CG1	VAL	A	93	34.896	27.906	39.215	1.00	10.40	A

FIGURE 5 (suite)

ATOM	680	CG2	VAL	A	93	32.592	27.269	38.376	1.00	10.45	A
ATOM	681	C	VAL	A	93	36.033	25.643	37.694	1.00	9.49	A
ATOM	682	O	VAL	A	93	36.162	24.745	38.527	1.00	12.26	A
ATOM	683	N	ALA	A	94	37.064	26.148	37.025	1.00	8.00	A
ATOM	684	CA	ALA	A	94	38.425	25.645	37.236	1.00	8.64	A
ATOM	685	CB	ALA	A	94	39.204	25.722	35.921	1.00	7.88	A
ATOM	686	C	ALA	A	94	39.197	26.374	38.329	1.00	7.97	A
ATOM	687	O	ALA	A	94	38.906	27.530	38.625	1.00	8.61	A
ATOM	688	N	ILE	A	95	40.210	25.709	38.894	1.00	5.77	A
ATOM	689	CA	ILE	A	95	41.016	26.290	39.963	1.00	7.30	A
ATOM	690	CB	ILE	A	95	40.870	25.486	41.307	1.00	9.66	A
ATOM	691	CG2	ILE	A	95	41.522	26.261	42.465	1.00	6.29	A
ATOM	692	CG1	ILE	A	95	39.401	25.218	41.641	1.00	10.13	A
ATOM	693	CD1	ILE	A	95	38.566	26.491	41.909	1.00	13.60	A
ATOM	694	C	ILE	A	95	42.496	26.263	39.572	1.00	8.10	A
ATOM	695	O	ILE	A	95	43.261	25.373	40.001	1.00	10.23	A
ATOM	696	N	PRO	A	96	42.923	27.216	38.742	1.00	6.65	A
ATOM	697	CD	PRO	A	96	42.133	28.263	38.063	1.00	6.16	A
ATOM	698	CA	PRO	A	96	44.330	27.265	38.326	1.00	7.43	A
ATOM	699	CB	PRO	A	96	44.275	28.107	37.054	1.00	9.06	A
ATOM	700	CG	PRO	A	96	43.207	29.147	37.446	1.00	8.84	A
ATOM	701	C	PRO	A	96	45.133	27.938	39.434	1.00	10.94	A
ATOM	702	O	PRO	A	96	44.574	28.645	40.277	1.00	8.21	A
ATOM	703	N	PHE	A	97	46.441	27.715	39.447	1.00	9.05	A
ATOM	704	CA	PHE	A	97	47.276	28.302	40.480	1.00	8.97	A
ATOM	705	CB	PHE	A	97	47.259	27.414	41.732	1.00	10.70	A
ATOM	706	CG	PHE	A	97	47.748	26.015	41.477	1.00	9.86	A
ATOM	707	CD1	PHE	A	97	49.114	25.720	41.524	1.00	10.13	A
ATOM	708	CD2	PHE	A	97	46.862	25.010	41.121	1.00	7.97	A
ATOM	709	CE1	PHE	A	97	49.589	24.436	41.211	1.00	9.97	A
ATOM	710	CE2	PHE	A	97	47.326	23.704	40.802	1.00	8.94	A
ATOM	711	CZ	PHE	A	97	48.709	23.433	40.852	1.00	7.63	A
ATOM	712	C	PHE	A	97	48.698	28.418	39.949	1.00	9.55	A
ATOM	713	O	PHE	A	97	49.054	27.761	38.962	1.00	9.51	A
ATOM	714	N	ARG	A	98	49.498	29.260	40.597	1.00	8.26	A
ATOM	715	CA	ARG	A	98	50.900	29.457	40.205	1.00	11.26	A
ATOM	716	CB	ARG	A	98	51.149	30.927	39.808	1.00	13.41	A
ATOM	717	CG	ARG	A	98	52.624	31.218	39.452	1.00	12.41	A
ATOM	718	CD	ARG	A	98	52.902	32.648	39.002	1.00	15.00	A
ATOM	719	NE	ARG	A	98	54.350	32.871	38.907	1.00	20.95	A
ATOM	720	CZ	ARG	A	98	55.048	33.714	39.670	1.00	19.61	A
ATOM	721	NH1	ARG	A	98	54.454	34.446	40.606	1.00	16.05	A
ATOM	722	NH2	ARG	A	98	56.361	33.824	39.500	1.00	22.95	A
ATOM	723	C	ARG	A	98	51.765	29.079	41.415	1.00	9.82	A
ATOM	724	O	ARG	A	98	51.955	29.881	42.327	1.00	12.72	A
ATOM	725	N	LYS	A	99	52.258	27.838	41.417	1.00	13.72	A
ATOM	726	CA	LYS	A	99	53.081	27.314	42.510	1.00	14.88	A
ATOM	727	CB	LYS	A	99	52.179	26.922	43.688	1.00	10.80	A
ATOM	728	CG	LYS	A	99	52.899	26.401	44.919	1.00	8.32	A
ATOM	729	CD	LYS	A	99	53.744	27.518	45.557	1.00	10.62	A
ATOM	730	CE	LYS	A	99	54.525	27.007	46.790	1.00	10.76	A
ATOM	731	NZ	LYS	A	99	55.346	28.125	47.368	1.00	13.56	A
ATOM	732	C	LYS	A	99	53.809	26.095	41.956	1.00	14.43	A
ATOM	733	O	LYS	A	99	53.200	25.056	41.701	1.00	15.34	A
ATOM	734	N	ALA	A	100	55.120	26.226	41.769	1.00	12.67	A
ATOM	735	CA	ALA	A	100	55.911	25.143	41.202	1.00	14.53	A
ATOM	736	CB	ALA	A	100	57.354	25.629	40.914	1.00	14.12	A
ATOM	737	C	ALA	A	100	55.960	23.900	42.072	1.00	14.42	A
ATOM	738	O	ALA	A	100	55.929	23.987	43.303	1.00	16.53	A
ATOM	739	N	GLY	A	101	56.061	22.751	41.409	1.00	10.16	A
ATOM	740	CA	GLY	A	101	56.133	21.476	42.096	1.00	11.78	A
ATOM	741	C	GLY	A	101	55.786	20.360	41.136	1.00	17.78	A
ATOM	742	O	GLY	A	101	54.853	20.479	40.338	1.00	14.78	A
ATOM	743	N	GLY	A	102	56.543	19.274	41.195	1.00	13.81	A
ATOM	744	CA	GLY	A	102	56.273	18.156	40.313	1.00	20.81	A
ATOM	745	C	GLY	A	102	55.051	17.348	40.720	1.00	16.58	A
ATOM	746	O	GLY	A	102	54.498	16.627	39.898	1.00	16.24	A
ATOM	747	N	ASN	A	103	54.624	17.451	41.976	1.00	17.72	A
ATOM	748	CA	ASN	A	103	53.465	16.675	42.434	1.00	16.85	A
ATOM	749	CB	ASN	A	103	53.372	16.694	43.963	1.00	15.22	A
ATOM	750	CG	ASN	A	103	54.365	15.760	44.615	1.00	23.02	A
ATOM	751	OD1	ASN	A	103	55.279	15.249	43.955	1.00	19.32	A
ATOM	752	ND2	ASN	A	103	54.205	15.535	45.916	1.00	15.75	A
ATOM	753	C	ASN	A	103	52.145	17.197	41.885	1.00	15.38	A
ATOM	754	O	ASN	A	103	51.991	18.390	41.666	1.00	11.02	A
ATOM	755	N	ALA	A	104	51.183	16.306	41.693	1.00	16.02	A

FIGURE 5 (suite)

ATOM	756	CA	ALA	A	104	49.880	16.744	41.219	1.00	16.65	A
ATOM	757	CB	ALA	A	104	49.068	15.538	40.741	1.00	20.27	A
ATOM	758	C	ALA	A	104	49.170	17.427	42.395	1.00	15.98	A
ATOM	759	O	ALA	A	104	49.298	16.986	43.531	1.00	15.25	A
ATOM	760	N	VAL	A	105	48.470	18.530	42.127	1.00	13.62	A
ATOM	761	CA	VAL	A	105	47.701	19.227	43.157	1.00	13.77	A
ATOM	762	CB	VAL	A	105	47.708	20.756	42.945	1.00	15.80	A
ATOM	763	CG1	VAL	A	105	46.645	21.409	43.814	1.00	16.24	A
ATOM	764	CG2	VAL	A	105	49.081	21.310	43.295	1.00	15.48	A
ATOM	765	C	VAL	A	105	46.273	18.699	43.026	1.00	13.93	A
ATOM	766	O	VAL	A	105	45.634	18.867	41.982	1.00	11.00	A
ATOM	767	N	ASP	A	106	45.781	18.059	44.085	1.00	11.30	A
ATOM	768	CA	ASP	A	106	44.446	17.447	44.087	1.00	13.33	A
ATOM	769	CB	ASP	A	106	44.594	15.914	44.007	1.00	15.23	A
ATOM	770	CG	ASP	A	106	43.266	15.181	43.763	1.00	18.75	A
ATOM	771	OD1	ASP	A	106	43.294	13.932	43.636	1.00	20.08	A
ATOM	772	OD2	ASP	A	106	42.201	15.832	43.705	1.00	16.37	A
ATOM	773	C	ASP	A	106	43.748	17.854	45.371	1.00	13.44	A
ATOM	774	O	ASP	A	106	44.013	17.312	46.441	1.00	12.47	A
ATOM	775	N	LEU	A	107	42.838	18.809	45.256	1.00	12.47	A
ATOM	776	CA	LEU	A	107	42.126	19.322	46.424	1.00	10.60	A
ATOM	777	CB	LEU	A	107	41.608	20.743	46.139	1.00	9.94	A
ATOM	778	CG	LEU	A	107	42.656	21.830	45.874	1.00	15.11	A
ATOM	779	CD1	LEU	A	107	41.992	23.049	45.233	1.00	12.77	A
ATOM	780	CD2	LEU	A	107	43.332	22.222	47.191	1.00	15.50	A
ATOM	781	C	LEU	A	107	40.936	18.504	46.860	1.00	11.58	A
ATOM	782	O	LEU	A	107	40.118	18.134	46.029	1.00	11.26	A
ATOM	783	N	SER	A	108	40.840	18.205	48.157	1.00	10.03	A
ATOM	784	CA	SER	A	108	39.632	17.555	48.632	1.00	9.49	A
ATOM	785	CB	SER	A	108	39.823	16.938	50.026	1.00	11.45	A
ATOM	786	OG	SER	A	108	40.112	17.944	50.988	1.00	10.62	A
ATOM	787	C	SER	A	108	38.686	18.762	48.734	1.00	13.88	A
ATOM	788	O	SER	A	108	39.137	19.909	48.733	1.00	9.31	A
ATOM	789	N	VAL	A	109	37.384	18.528	48.795	1.00	11.62	A
ATOM	790	CA	VAL	A	109	36.456	19.648	48.915	1.00	12.52	A
ATOM	791	CB	VAL	A	109	34.997	19.149	48.822	1.00	14.25	A
ATOM	792	CG1	VAL	A	109	34.022	20.273	49.172	1.00	10.43	A
ATOM	793	CG2	VAL	A	109	34.738	18.624	47.385	1.00	9.95	A
ATOM	794	C	VAL	A	109	36.705	20.397	50.228	1.00	8.60	A
ATOM	795	O	VAL	A	109	36.646	21.622	50.265	1.00	9.21	A
ATOM	796	N	LYS	A	110	36.995	19.666	51.301	1.00	9.28	A
ATOM	797	CA	LYS	A	110	37.307	20.306	52.593	1.00	7.04	A
ATOM	798	CB	LYS	A	110	37.597	19.237	53.650	1.00	7.60	A
ATOM	799	CG	LYS	A	110	38.038	19.793	55.030	1.00	9.51	A
ATOM	800	CD	LYS	A	110	36.987	20.726	55.655	1.00	7.71	A
ATOM	801	CE	LYS	A	110	37.436	21.170	57.033	1.00	15.09	A
ATOM	802	NZ	LYS	A	110	36.482	22.129	57.688	1.00	11.10	A
ATOM	803	C	LYS	A	110	38.532	21.234	52.452	1.00	8.55	A
ATOM	804	O	LYS	A	110	38.588	22.313	53.040	1.00	9.65	A
ATOM	805	N	GLU	A	111	39.530	20.803	51.696	1.00	8.56	A
ATOM	806	CA	GLU	A	111	40.711	21.640	51.495	1.00	11.39	A
ATOM	807	CB	GLU	A	111	41.817	20.836	50.800	1.00	13.45	A
ATOM	808	CG	GLU	A	111	42.582	19.940	51.784	1.00	15.25	A
ATOM	809	CD	GLU	A	111	43.527	18.960	51.098	1.00	16.99	A
ATOM	810	OE1	GLU	A	111	44.310	18.296	51.808	1.00	12.70	A
ATOM	811	OE2	GLU	A	111	43.477	18.851	49.860	1.00	13.80	A
ATOM	812	C	GLU	A	111	40.342	22.881	50.663	1.00	12.16	A
ATOM	813	O	GLU	A	111	40.751	23.998	50.983	1.00	8.45	A
ATOM	814	N	LEU	A	112	39.586	22.680	49.587	1.00	11.50	A
ATOM	815	CA	LEU	A	112	39.157	23.802	48.753	1.00	11.60	A
ATOM	816	CB	LEU	A	112	38.127	23.339	47.728	1.00	12.29	A
ATOM	817	CG	LEU	A	112	37.520	24.486	46.906	1.00	13.68	A
ATOM	818	CD1	LEU	A	112	38.486	24.835	45.793	1.00	14.87	A
ATOM	819	CD2	LEU	A	112	36.183	24.067	46.307	1.00	23.81	A
ATOM	820	C	LEU	A	112	38.491	24.845	49.648	1.00	11.64	A
ATOM	821	O	LEU	A	112	38.782	26.036	49.569	1.00	9.35	A
ATOM	822	N	CYS	A	113	37.598	24.370	50.511	1.00	9.13	A
ATOM	823	CA	CYS	A	113	36.869	25.251	51.407	1.00	10.02	A
ATOM	824	C	CYS	A	113	37.806	26.040	52.332	1.00	10.42	A
ATOM	825	O	CYS	A	113	37.620	27.243	52.550	1.00	9.94	A
ATOM	826	CB	CYS	A	113	35.881	24.414	52.215	1.00	7.06	A
ATOM	827	SG	CYS	A	113	34.495	23.714	51.225	1.00	12.97	A
ATOM	828	N	GLY	A	114	38.815	25.357	52.854	1.00	8.53	A
ATOM	829	CA	GLY	A	114	39.774	25.979	53.746	1.00	8.15	A
ATOM	830	C	GLY	A	114	40.615	27.023	53.048	1.00	8.58	A
ATOM	831	O	GLY	A	114	40.974	28.045	53.660	1.00	9.42	A

FIGURE 5 (suite)

ATOM	832	N	VAL	A	115	40.929	26.780	51.773	1.00	8.91	A
ATOM	833	CA	VAL	A	115	41.724	27.727	51.001	1.00	11.99	A
ATOM	834	CB	VAL	A	115	42.142	27.154	49.611	1.00	10.97	A
ATOM	835	CG1	VAL	A	115	42.754	28.274	48.736	1.00	12.08	A
ATOM	836	CG2	VAL	A	115	43.175	26.034	49.794	1.00	9.96	A
ATOM	837	C	VAL	A	115	40.933	28.999	50.769	1.00	10.50	A
ATOM	838	O	VAL	A	115	41.450	30.107	50.958	1.00	10.53	A
ATOM	839	N	PHE	A	116	39.672	28.856	50.383	1.00	10.04	A
ATOM	840	CA	PHE	A	116	38.885	30.046	50.123	1.00	12.53	A
ATOM	841	CB	PHE	A	116	37.891	29.774	49.000	1.00	8.51	A
ATOM	842	CG	PHE	A	116	38.564	29.656	47.664	1.00	8.77	A
ATOM	843	CD1	PHE	A	116	39.041	28.429	47.220	1.00	7.52	A
ATOM	844	CD2	PHE	A	116	38.792	30.791	46.892	1.00	10.79	A
ATOM	845	CE1	PHE	A	116	39.742	28.319	46.019	1.00	11.26	A
ATOM	846	CE2	PHE	A	116	39.494	30.708	45.682	1.00	12.98	A
ATOM	847	CZ	PHE	A	116	39.971	29.463	45.244	1.00	12.19	A
ATOM	848	C	PHE	A	116	38.236	30.713	51.319	1.00	11.72	A
ATOM	849	O	PHE	A	116	37.688	31.802	51.180	1.00	10.01	A
ATOM	850	N	SER	A	117	38.323	30.077	52.493	1.00	7.36	A
ATOM	851	CA	SER	A	117	37.802	30.669	53.722	1.00	12.12	A
ATOM	852	CB	SER	A	117	37.217	29.605	54.654	1.00	11.41	A
ATOM	853	OG	SER	A	117	38.251	28.827	55.231	1.00	12.73	A
ATOM	854	C	SER	A	117	38.935	31.372	54.474	1.00	12.93	A
ATOM	855	O	SER	A	117	38.693	32.241	55.316	1.00	9.90	A
ATOM	856	N	GLY	A	118	40.169	30.988	54.174	1.00	14.10	A
ATOM	857	CA	GLY	A	118	41.312	31.576	54.860	1.00	13.07	A
ATOM	858	C	GLY	A	118	41.850	30.640	55.931	1.00	15.32	A
ATOM	859	O	GLY	A	118	42.935	30.873	56.484	1.00	15.65	A
ATOM	860	N	ARG	A	119	41.107	29.575	56.241	1.00	15.32	A
ATOM	861	CA	ARG	A	119	41.550	28.622	57.266	1.00	15.10	A
ATOM	862	CB	ARG	A	119	40.503	27.518	57.485	1.00	17.52	A
ATOM	863	CG	ARG	A	119	40.986	26.359	58.390	1.00	19.04	A
ATOM	864	CD	ARG	A	119	39.880	25.325	58.628	1.00	17.23	A
ATOM	865	NE	ARG	A	119	39.338	24.771	57.377	1.00	11.41	A
ATOM	866	CZ	ARG	A	119	39.828	23.717	56.727	1.00	13.77	A
ATOM	867	NH1	ARG	A	119	40.895	23.061	57.188	1.00	9.19	A
ATOM	868	NH2	ARG	A	119	39.239	23.317	55.607	1.00	10.56	A
ATOM	869	C	ARG	A	119	42.896	27.990	56.896	1.00	14.09	A
ATOM	870	O	ARG	A	119	43.749	27.784	57.757	1.00	12.49	A
ATOM	871	N	ILE	A	120	43.074	27.672	55.620	1.00	14.25	A
ATOM	872	CA	ILE	A	120	44.327	27.088	55.134	1.00	11.87	A
ATOM	873	CB	ILE	A	120	44.066	25.956	54.113	1.00	13.86	A
ATOM	874	CG2	ILE	A	120	45.373	25.443	53.529	1.00	12.88	A
ATOM	875	CG1	ILE	A	120	43.349	24.796	54.812	1.00	12.97	A
ATOM	876	CD1	ILE	A	120	42.920	23.638	53.863	1.00	12.93	A
ATOM	877	C	ILE	A	120	45.042	28.241	54.445	1.00	16.50	A
ATOM	878	O	ILE	A	120	44.606	28.704	53.391	1.00	15.43	A
ATOM	879	N	ALA	A	121	46.131	28.706	55.051	1.00	15.30	A
ATOM	880	CA	ALA	A	121	46.884	29.848	54.529	1.00	14.70	A
ATOM	881	CB	ALA	A	121	47.111	30.850	55.640	1.00	21.39	A
ATOM	882	C	ALA	A	121	48.211	29.482	53.904	1.00	15.45	A
ATOM	883	O	ALA	A	121	48.868	30.329	53.284	1.00	16.44	A
ATOM	884	N	ASN	A	122	48.608	28.227	54.056	1.00	12.07	A
ATOM	885	CA	ASN	A	122	49.887	27.789	53.507	1.00	12.53	A
ATOM	886	CB	ASN	A	122	50.853	27.467	54.660	1.00	13.64	A
ATOM	887	CG	ASN	A	122	52.279	27.293	54.188	1.00	16.68	A
ATOM	888	OD1	ASN	A	122	52.666	26.224	53.725	1.00	18.01	A
ATOM	889	ND2	ASN	A	122	53.063	28.363	54.279	1.00	14.68	A
ATOM	890	C	ASN	A	122	49.681	26.568	52.608	1.00	11.32	A
ATOM	891	O	ASN	A	122	48.809	25.737	52.865	1.00	11.94	A
ATOM	892	N	TRP	A	123	50.454	26.499	51.528	1.00	12.38	A
ATOM	893	CA	TRP	A	123	50.365	25.390	50.580	1.00	10.94	A
ATOM	894	CB	TRP	A	123	51.330	25.597	49.406	1.00	10.33	A
ATOM	895	CG	TRP	A	123	50.761	26.503	48.337	1.00	12.83	A
ATOM	896	CD2	TRP	A	123	49.900	26.108	47.261	1.00	10.58	A
ATOM	897	CE2	TRP	A	123	49.568	27.279	46.533	1.00	12.26	A
ATOM	898	CE3	TRP	A	123	49.381	24.884	46.841	1.00	12.52	A
ATOM	899	CD1	TRP	A	123	50.916	27.862	48.227	1.00	15.24	A
ATOM	900	NE1	TRP	A	123	50.198	28.334	47.140	1.00	12.70	A
ATOM	901	CZ2	TRP	A	123	48.732	27.256	45.403	1.00	10.92	A
ATOM	902	CZ3	TRP	A	123	48.547	24.863	45.710	1.00	16.36	A
ATOM	903	CH2	TRP	A	123	48.237	26.043	45.012	1.00	9.72	A
ATOM	904	C	TRP	A	123	50.661	24.045	51.213	1.00	13.55	A
ATOM	905	O	TRP	A	123	50.284	23.006	50.676	1.00	13.98	A
ATOM	906	N	SER	A	124	51.346	24.054	52.349	1.00	13.10	A
ATOM	907	CA	SER	A	124	51.654	22.801	53.010	1.00	11.36	A

FIGURE 5 (suite)

ATOM	908	CB	SER	A	124	52.670	23.038	54.135	1.00	11.89	A
ATOM	909	OG	SER	A	124	52.130	23.884	55.132	1.00	14.19	A
ATOM	910	C	SER	A	124	50.361	22.161	53.564	1.00	17.25	A
ATOM	911	O	SER	A	124	50.354	20.974	53.924	1.00	13.81	A
ATOM	912	N	GLY	A	125	49.273	22.937	53.617	1.00	13.73	A
ATOM	913	CA	GLY	A	125	47.999	22.416	54.117	1.00	13.26	A
ATOM	914	C	GLY	A	125	47.216	21.569	53.101	1.00	19.05	A
ATOM	915	O	GLY	A	125	46.116	21.066	53.404	1.00	15.82	A
ATOM	916	N	ILE	A	126	47.759	21.413	51.892	1.00	11.57	A
ATOM	917	CA	ILE	A	126	47.111	20.590	50.866	1.00	13.57	A
ATOM	918	CB	ILE	A	126	47.116	21.338	49.499	1.00	10.65	A
ATOM	919	CG2	ILE	A	126	46.584	20.440	48.369	1.00	10.73	A
ATOM	920	CG1	ILE	A	126	46.244	22.598	49.639	1.00	14.04	A
ATOM	921	CD1	ILE	A	126	46.355	23.571	48.474	1.00	21.47	A
ATOM	922	C	ILE	A	126	47.886	19.270	50.794	1.00	14.42	A
ATOM	923	O	ILE	A	126	49.012	19.228	50.299	1.00	12.48	A
ATOM	924	N	THR	A	127	47.287	18.199	51.310	1.00	14.33	A
ATOM	925	CA	THR	A	127	47.974	16.918	51.341	1.00	15.70	A
ATOM	926	CB	THR	A	127	47.144	15.848	52.079	1.00	20.78	A
ATOM	927	OG1	THR	A	127	45.978	15.519	51.309	1.00	21.71	A
ATOM	928	CG2	THR	A	127	46.719	16.379	53.462	1.00	19.06	A
ATOM	929	C	THR	A	127	48.389	16.389	49.978	1.00	15.85	A
ATOM	930	O	THR	A	127	47.628	16.442	49.011	1.00	15.48	A
ATOM	931	N	GLY	A	128	49.627	15.907	49.925	1.00	11.25	A
ATOM	932	CA	GLY	A	128	50.202	15.348	48.719	1.00	13.92	A
ATOM	933	C	GLY	A	128	50.726	16.299	47.655	1.00	15.93	A
ATOM	934	O	GLY	A	128	51.360	15.837	46.718	1.00	18.28	A
ATOM	935	N	ALA	A	129	50.491	17.610	47.788	1.00	13.36	A
ATOM	936	CA	ALA	A	129	50.929	18.558	46.765	1.00	14.53	A
ATOM	937	CB	ALA	A	129	50.138	19.873	46.886	1.00	13.51	A
ATOM	938	C	ALA	A	129	52.428	18.856	46.777	1.00	20.08	A
ATOM	939	O	ALA	A	129	52.954	19.427	45.811	1.00	13.92	A
ATOM	940	N	GLY	A	130	53.110	18.489	47.863	1.00	15.72	A
ATOM	941	CA	GLY	A	130	54.552	18.715	47.931	1.00	18.22	A
ATOM	942	C	GLY	A	130	54.937	20.167	47.720	1.00	17.01	A
ATOM	943	O	GLY	A	130	55.944	20.485	47.088	1.00	16.95	A
ATOM	944	N	ARG	A	131	54.130	21.059	48.274	1.00	14.88	A
ATOM	945	CA	ARG	A	131	54.361	22.500	48.142	1.00	14.67	A
ATOM	946	CB	ARG	A	131	53.312	23.102	47.190	1.00	10.65	A
ATOM	947	CG	ARG	A	131	53.506	22.713	45.730	1.00	14.78	A
ATOM	948	CD	ARG	A	131	52.234	22.985	44.895	1.00	13.27	A
ATOM	949	NE	ARG	A	131	52.479	22.959	43.441	1.00	13.40	A
ATOM	950	CZ	ARG	A	131	52.670	21.873	42.695	1.00	12.12	A
ATOM	951	NH1	ARG	A	131	52.880	22.010	41.383	1.00	12.83	A
ATOM	952	NH2	ARG	A	131	52.656	20.660	43.233	1.00	13.76	A
ATOM	953	C	ARG	A	131	54.217	23.171	49.502	1.00	14.12	A
ATOM	954	O	ARG	A	131	53.451	22.703	50.329	1.00	15.12	A
ATOM	955	N	SER	A	132	54.948	24.258	49.730	1.00	12.39	A
ATOM	956	CA	SER	A	132	54.830	24.987	50.990	1.00	15.94	A
ATOM	957	CB	SER	A	132	55.817	24.450	52.046	1.00	22.25	A
ATOM	958	OG	SER	A	132	57.143	24.690	51.644	1.00	25.99	A
ATOM	959	C	SER	A	132	55.070	26.468	50.735	1.00	12.92	A
ATOM	960	O	SER	A	132	55.695	26.857	49.746	1.00	16.84	A
ATOM	961	N	GLY	A	133	54.570	27.300	51.634	1.00	14.33	A
ATOM	962	CA	GLY	A	133	54.695	28.734	51.442	1.00	14.73	A
ATOM	963	C	GLY	A	133	53.295	29.318	51.394	1.00	14.56	A
ATOM	964	O	GLY	A	133	52.320	28.589	51.183	1.00	12.31	A
ATOM	965	N	PRO	A	134	53.162	30.633	51.561	1.00	15.09	A
ATOM	966	CD	PRO	A	134	54.254	31.607	51.743	1.00	16.35	A
ATOM	967	CA	PRO	A	134	51.854	31.291	51.548	1.00	14.55	A
ATOM	968	CB	PRO	A	134	52.196	32.760	51.828	1.00	20.54	A
ATOM	969	CG	PRO	A	134	53.623	32.900	51.266	1.00	21.58	A
ATOM	970	C	PRO	A	134	50.997	31.143	50.299	1.00	16.29	A
ATOM	971	O	PRO	A	134	51.509	31.105	49.180	1.00	12.69	A
ATOM	972	N	ILE	A	135	49.685	31.057	50.527	1.00	13.39	A
ATOM	973	CA	ILE	A	135	48.688	30.973	49.454	1.00	13.74	A
ATOM	974	CB	ILE	A	135	47.523	30.010	49.801	1.00	15.95	A
ATOM	975	CG2	ILE	A	135	46.417	30.115	48.727	1.00	13.97	A
ATOM	976	CG1	ILE	A	135	48.032	28.582	49.918	1.00	15.73	A
ATOM	977	CD1	ILE	A	135	46.988	27.607	50.453	1.00	15.61	A
ATOM	978	C	ILE	A	135	48.077	32.366	49.353	1.00	13.04	A
ATOM	979	O	ILE	A	135	47.757	32.983	50.372	1.00	15.69	A
ATOM	980	N	GLN	A	136	47.918	32.872	48.136	1.00	11.91	A
ATOM	981	CA	GLN	A	136	47.319	34.190	47.958	1.00	11.20	A
ATOM	982	CB	GLN	A	136	48.317	35.145	47.306	1.00	12.71	A
ATOM	983	CG	GLN	A	136	47.892	36.594	47.337	1.00	19.42	A

FIGURE 5 (suite)

ATOM	984	CD	GLN	A	136	48.999	37.566	46.905	1.00	23.10	A
ATOM	985	OE1	GLN	A	136	49.620	37.403	45.858	1.00	23.52	A
ATOM	986	NE2	GLN	A	136	49.233	38.585	47.714	1.00	30.84	A
ATOM	987	C	GLN	A	136	46.105	34.023	47.053	1.00	9.51	A
ATOM	988	O	GLN	A	136	46.254	33.639	45.921	1.00	9.81	A
ATOM	989	N	VAL	A	137	44.911	34.303	47.552	1.00	8.18	A
ATOM	990	CA	VAL	A	137	43.717	34.161	46.733	1.00	4.96	A
ATOM	991	CB	VAL	A	137	42.470	33.907	47.657	1.00	8.36	A
ATOM	992	CG1	VAL	A	137	41.176	34.014	46.855	1.00	5.20	A
ATOM	993	CG2	VAL	A	137	42.589	32.543	48.294	1.00	10.61	A
ATOM	994	C	VAL	A	137	43.442	35.380	45.837	1.00	9.91	A
ATOM	995	O	VAL	A	137	43.555	36.534	46.284	1.00	9.14	A
ATOM	996	N	VAL	A	138	43.124	35.114	44.566	1.00	7.01	A
ATOM	997	CA	VAL	A	138	42.735	36.134	43.600	1.00	8.67	A
ATOM	998	CB	VAL	A	138	43.437	35.976	42.226	1.00	9.91	A
ATOM	999	CG1	VAL	A	138	42.983	37.092	41.301	1.00	11.71	A
ATOM	1000	CG2	VAL	A	138	44.947	36.068	42.394	1.00	18.67	A
ATOM	1001	C	VAL	A	138	41.237	35.914	43.386	1.00	7.40	A
ATOM	1002	O	VAL	A	138	40.791	34.775	43.196	1.00	7.75	A
ATOM	1003	N	TYR	A	139	40.452	36.987	43.435	1.00	9.87	A
ATOM	1004	CA	TYR	A	139	39.009	36.871	43.256	1.00	9.42	A
ATOM	1005	CB	TYR	A	139	38.303	36.902	44.625	1.00	8.26	A
ATOM	1006	CG	TYR	A	139	38.509	38.192	45.389	1.00	9.37	A
ATOM	1007	CD1	TYR	A	139	37.570	39.211	45.322	1.00	8.61	A
ATOM	1008	CE1	TYR	A	139	37.748	40.424	46.013	1.00	9.72	A
ATOM	1009	CD2	TYR	A	139	39.659	38.397	46.177	1.00	9.71	A
ATOM	1010	CE2	TYR	A	139	39.853	39.616	46.878	1.00	12.90	A
ATOM	1011	CZ	TYR	A	139	38.890	40.623	46.786	1.00	15.66	A
ATOM	1012	OH	TYR	A	139	39.045	41.829	47.459	1.00	8.23	A
ATOM	1013	C	TYR	A	139	38.507	38.006	42.381	1.00	8.45	A
ATOM	1014	O	TYR	A	139	39.246	38.947	42.099	1.00	8.15	A
ATOM	1015	N	ARG	A	140	37.259	37.899	41.935	1.00	8.93	A
ATOM	1016	CA	ARG	A	140	36.660	38.903	41.070	1.00	7.41	A
ATOM	1017	CB	ARG	A	140	35.514	38.296	40.243	1.00	10.32	A
ATOM	1018	CG	ARG	A	140	35.991	37.317	39.148	1.00	5.86	A
ATOM	1019	CD	ARG	A	140	36.556	38.103	37.948	1.00	5.80	A
ATOM	1020	NE	ARG	A	140	35.502	38.821	37.218	1.00	7.23	A
ATOM	1021	CZ	ARG	A	140	34.659	38.232	36.376	1.00	11.87	A
ATOM	1022	NH1	ARG	A	140	34.748	36.918	36.152	1.00	5.93	A
ATOM	1023	NH2	ARG	A	140	33.715	38.952	35.769	1.00	8.31	A
ATOM	1024	C	ARG	A	140	36.129	40.063	41.895	1.00	8.44	A
ATOM	1025	O	ARG	A	140	35.327	39.896	42.832	1.00	8.91	A
ATOM	1026	N	ALA	A	141	36.583	41.242	41.523	1.00	8.44	A
ATOM	1027	CA	ALA	A	141	36.198	42.471	42.206	1.00	8.99	A
ATOM	1028	CB	ALA	A	141	37.121	43.579	41.761	1.00	12.40	A
ATOM	1029	C	ALA	A	141	34.748	42.895	41.975	1.00	11.15	A
ATOM	1030	O	ALA	A	141	34.091	43.421	42.878	1.00	9.17	A
ATOM	1031	N	GLU	A	142	34.258	42.679	40.765	1.00	10.41	A
ATOM	1032	CA	GLU	A	142	32.912	43.110	40.401	1.00	11.28	A
ATOM	1033	CB	GLU	A	142	32.944	43.735	38.995	1.00	11.17	A
ATOM	1034	CG	GLU	A	142	32.968	42.720	37.800	1.00	16.02	A
ATOM	1035	CD	GLU	A	142	34.319	41.984	37.551	1.00	14.71	A
ATOM	1036	OE1	GLU	A	142	35.102	41.758	38.492	1.00	20.26	A
ATOM	1037	OE2	GLU	A	142	34.582	41.608	36.382	1.00	15.07	A
ATOM	1038	C	GLU	A	142	31.854	42.001	40.428	1.00	15.45	A
ATOM	1039	O	GLU	A	142	32.160	40.827	40.689	1.00	11.17	A
ATOM	1040	N	VAL	A	143	30.604	42.399	40.170	1.00	13.82	A
ATOM	1041	CA	VAL	A	143	29.474	41.461	40.114	1.00	12.65	A
ATOM	1042	CE	VAL	A	143	28.155	42.192	39.792	1.00	12.26	A
ATOM	1043	CG1	VAL	A	143	27.052	41.196	39.668	1.00	17.81	A
ATOM	1044	CG2	VAL	A	143	27.822	43.174	40.870	1.00	18.80	A
ATOM	1045	C	VAL	A	143	29.770	40.456	38.996	1.00	12.06	A
ATOM	1046	O	VAL	A	143	29.785	40.814	37.811	1.00	10.75	A
ATOM	1047	N	SER	A	144	29.972	39.198	39.388	1.00	10.21	A
ATOM	1048	CA	SER	A	144	30.352	38.119	38.462	1.00	6.60	A
ATOM	1049	CB	SER	A	144	31.822	37.764	38.758	1.00	8.21	A
ATOM	1050	OG	SER	A	144	32.188	36.468	38.328	1.00	8.64	A
ATOM	1051	C	SER	A	144	29.499	36.834	38.512	1.00	7.57	A
ATOM	1052	O	SER	A	144	29.166	36.346	39.601	1.00	8.05	A
ATOM	1053	N	GLY	A	145	29.168	36.303	37.330	1.00	5.34	A
ATOM	1054	CA	GLY	A	145	28.437	35.047	37.226	1.00	7.72	A
ATOM	1055	C	GLY	A	145	29.335	33.884	37.638	1.00	7.84	A
ATOM	1056	O	GLY	A	145	28.873	32.870	38.197	1.00	6.69	A
ATOM	1057	N	THR	A	146	30.628	34.001	37.357	1.00	6.57	A
ATOM	1058	CA	THR	A	146	31.574	32.953	37.758	1.00	6.39	A
ATOM	1059	CB	THR	A	146	33.012	33.263	37.279	1.00	9.37	A

FIGURE 5 (suite)

ATOM	1060	OG1	THR	A	146	33.026	33.463	35.855	1.00	8.49	A
ATOM	1061	CG2	THR	A	146	33.928	32.087	37.613	1.00	11.25	A
ATOM	1062	C	THR	A	146	31.569	32.892	39.294	1.00	8.02	A
ATOM	1063	O	THR	A	146	31.601	31.802	39.888	1.00	8.00	A
ATOM	1064	N	THR	A	147	31.551	34.064	39.930	1.00	6.33	A
ATOM	1065	CA	THR	A	147	31.483	34.131	41.394	1.00	8.35	A
ATOM	1066	CB	THR	A	147	31.554	35.591	41.921	1.00	6.29	A
ATOM	1067	OG1	THR	A	147	32.834	36.161	41.624	1.00	7.92	A
ATOM	1068	CG2	THR	A	147	31.373	35.602	43.450	1.00	8.46	A
ATOM	1069	C	THR	A	147	30.175	33.486	41.885	1.00	5.86	A
ATOM	1070	O	THR	A	147	30.172	32.745	42.883	1.00	7.90	A
ATOM	1071	N	GLU	A	148	29.059	33.751	41.198	1.00	5.81	A
ATOM	1072	CA	GLU	A	148	27.786	33.131	41.592	1.00	5.50	A
ATOM	1073	CB	GLU	A	148	26.644	33.653	40.710	1.00	6.06	A
ATOM	1074	CG	GLU	A	148	25.284	33.004	41.058	1.00	10.99	A
ATOM	1075	CD	GLU	A	148	24.076	33.737	40.457	1.00	12.04	A
ATOM	1076	OE1	GLU	A	148	23.920	34.966	40.685	1.00	9.92	A
ATOM	1077	OE2	GLU	A	148	23.271	33.078	39.765	1.00	13.03	A
ATOM	1078	C	GLU	A	148	27.846	31.591	41.491	1.00	6.20	A
ATOM	1079	O	GLU	A	148	27.419	30.866	42.408	1.00	7.44	A
ATOM	1080	N	LEU	A	149	28.318	31.077	40.359	1.00	4.66	A
ATOM	1081	CA	LEU	A	149	28.442	29.616	40.196	1.00	6.87	A
ATOM	1082	CB	LEU	A	149	29.011	29.301	38.807	1.00	7.74	A
ATOM	1083	CG	LEU	A	149	28.105	29.569	37.591	1.00	8.75	A
ATOM	1084	CD1	LEU	A	149	28.878	29.218	36.342	1.00	10.50	A
ATOM	1085	CD2	LEU	A	149	26.804	28.721	37.678	1.00	9.52	A
ATOM	1086	C	LEU	A	149	29.376	28.980	41.254	1.00	7.07	A
ATOM	1087	O	LEU	A	149	29.127	27.865	41.754	1.00	7.65	A
ATOM	1088	N	PHE	A	150	30.473	29.670	41.568	1.00	8.71	A
ATOM	1089	CA	PHE	A	150	31.459	29.183	42.540	1.00	7.06	A
ATOM	1090	CB	PHE	A	150	32.752	30.021	42.427	1.00	6.97	A
ATOM	1091	CG	PHE	A	150	33.884	29.551	43.325	1.00	9.24	A
ATOM	1092	CD1	PHE	A	150	34.313	28.225	43.305	1.00	10.27	A
ATOM	1093	CD2	PHE	A	150	34.557	30.455	44.138	1.00	12.03	A
ATOM	1094	CE1	PHE	A	150	35.411	27.803	44.081	1.00	12.21	A
ATOM	1095	CE2	PHE	A	150	35.657	30.050	44.920	1.00	11.31	A
ATOM	1096	CZ	PHE	A	150	36.083	28.721	44.890	1.00	10.56	A
ATOM	1097	C	PHE	A	150	30.936	29.217	43.987	1.00	7.58	A
ATOM	1098	O	PHE	A	150	31.060	28.236	44.709	1.00	6.52	A
ATOM	1099	N	THR	A	151	30.350	30.334	44.409	1.00	7.57	A
ATOM	1100	CA	THR	A	151	29.836	30.437	45.770	1.00	8.97	A
ATOM	1101	CB	THR	A	151	29.548	31.938	46.193	1.00	9.78	A
ATOM	1102	OG1	THR	A	151	28.580	32.526	45.314	1.00	8.77	A
ATOM	1103	CG2	THR	A	151	30.826	32.744	46.152	1.00	7.96	A
ATOM	1104	C	THR	A	151	28.588	29.588	45.988	1.00	7.22	A
ATOM	1105	O	THR	A	151	28.274	29.245	47.131	1.00	7.49	A
ATOM	1106	N	ARG	A	152	27.873	29.229	44.916	1.00	5.13	A
ATOM	1107	CA	ARG	A	152	26.715	28.351	45.099	1.00	9.17	A
ATOM	1108	CB	ARG	A	152	25.914	28.189	43.796	1.00	9.15	A
ATOM	1109	CG	ARG	A	152	24.606	27.376	43.974	1.00	10.79	A
ATOM	1110	CD	ARG	A	152	23.671	27.529	42.755	1.00	17.61	A
ATOM	1111	NE	ARG	A	152	23.071	28.868	42.641	1.00	14.93	A
ATOM	1112	CZ	ARG	A	152	23.188	29.662	41.577	1.00	16.78	A
ATOM	1113	NH1	ARG	A	152	22.605	30.860	41.565	1.00	11.71	A
ATOM	1114	NH2	ARG	A	152	23.885	29.265	40.518	1.00	11.02	A
ATOM	1115	C	ARG	A	152	27.274	27.007	45.557	1.00	7.79	A
ATOM	1116	O	ARG	A	152	26.671	26.313	46.389	1.00	5.08	A
ATOM	1117	N	PHE	A	153	28.436	26.639	45.017	1.00	6.70	A
ATOM	1118	CA	PHE	A	153	29.101	25.395	45.413	1.00	9.70	A
ATOM	1119	CB	PHE	A	153	30.280	25.059	44.478	1.00	7.27	A
ATOM	1120	CG	PHE	A	153	30.974	23.747	44.812	1.00	6.93	A
ATOM	1121	CD1	PHE	A	153	30.451	22.532	44.389	1.00	9.41	A
ATOM	1122	CD2	PHE	A	153	32.134	23.738	45.592	1.00	9.61	A
ATOM	1123	CE1	PHE	A	153	31.069	21.315	44.747	1.00	11.43	A
ATOM	1124	CE2	PHE	A	153	32.764	22.534	45.959	1.00	13.90	A
ATOM	1125	CZ	PHE	A	153	32.229	21.323	45.537	1.00	11.19	A
ATOM	1126	C	PHE	A	153	29.640	25.503	46.842	1.00	8.50	A
ATOM	1127	O	PHE	A	153	29.455	24.586	47.638	1.00	8.41	A
ATOM	1128	N	LEU	A	154	30.320	26.599	47.167	1.00	6.84	A
ATOM	1129	CA	LEU	A	154	30.877	26.752	48.521	1.00	6.20	A
ATOM	1130	CB	LEU	A	154	31.672	28.060	48.657	1.00	6.23	A
ATOM	1131	CG	LEU	A	154	32.876	28.250	47.720	1.00	6.30	A
ATOM	1132	CD1	LEU	A	154	33.543	29.583	48.020	1.00	9.48	A
ATOM	1133	CD2	LEU	A	154	33.893	27.117	47.886	1.00	6.15	A
ATOM	1134	C	LEU	A	154	29.762	26.737	49.564	1.00	6.13	A
ATOM	1135	O	LEU	A	154	29.912	26.170	50.641	1.00	9.16	A

FIGURE 5 (suite)

ATOM	1136	N	ASN	A	155	28.652	27.376	49.233	1.00	5.19	A
ATOM	1137	CA	ASN	A	155	27.493	27.430	50.116	1.00	6.32	A
ATOM	1138	CB	ASN	A	155	26.406	28.314	49.486	1.00	11.33	A
ATOM	1139	CG	ASN	A	155	25.093	28.294	50.274	1.00	14.59	A
ATOM	1140	OD1	ASN	A	155	24.149	27.596	49.906	1.00	9.21	A
ATOM	1141	ND2	ASN	A	155	25.034	29.062	51.361	1.00	8.23	A
ATOM	1142	C	ASN	A	155	26.929	26.042	50.363	1.00	8.76	A
ATOM	1143	O	ASN	A	155	26.465	25.712	51.465	1.00	8.00	A
ATOM	1144	N	ALA	A	156	26.965	25.203	49.336	1.00	8.80	A
ATOM	1145	CA	ALA	A	156	26.418	23.867	49.493	1.00	7.63	A
ATOM	1146	CB	ALA	A	156	26.068	23.300	48.119	1.00	8.06	A
ATOM	1147	C	ALA	A	156	27.336	22.882	50.222	1.00	12.23	A
ATOM	1148	O	ALA	A	156	26.854	22.037	50.994	1.00	9.62	A
ATOM	1149	N	LYS	A	157	28.646	23.029	50.015	1.00	9.93	A
ATOM	1150	CA	LYS	A	157	29.623	22.064	50.537	1.00	10.69	A
ATOM	1151	CB	LYS	A	157	30.437	21.527	49.352	1.00	14.97	A
ATOM	1152	CG	LYS	A	157	29.604	20.877	48.227	1.00	13.56	A
ATOM	1153	CD	LYS	A	157	28.855	19.640	48.729	1.00	16.77	A
ATOM	1154	CE	LYS	A	157	28.357	18.784	47.575	1.00	22.67	A
ATOM	1155	NZ	LYS	A	157	27.652	17.546	48.069	1.00	21.73	A
ATOM	1156	C	LYS	A	157	30.611	22.438	51.638	1.00	8.73	A
ATOM	1157	O	LYS	A	157	31.215	21.552	52.245	1.00	11.63	A
ATOM	1158	N	CYS	A	158	30.821	23.725	51.876	1.00	8.12	A
ATOM	1159	CA	CYS	A	158	31.759	24.132	52.916	1.00	8.20	A
ATOM	1160	C	CYS	A	158	30.974	24.252	54.207	1.00	9.14	A
ATOM	1161	O	CYS	A	158	30.648	25.349	54.661	1.00	10.53	A
ATOM	1162	CB	CYS	A	158	32.390	25.464	52.537	1.00	10.13	A
ATOM	1163	SG	CYS	A	158	33.331	25.358	50.982	1.00	11.82	A
ATOM	1164	N	THR	A	159	30.699	23.108	54.822	1.00	8.92	A
ATOM	1165	CA	THR	A	159	29.856	23.091	56.017	1.00	6.75	A
ATOM	1166	CB	THR	A	159	28.850	21.933	55.903	1.00	10.13	A
ATOM	1167	OG1	THR	A	159	29.551	20.690	55.987	1.00	12.88	A
ATOM	1168	CG2	THR	A	159	28.146	21.989	54.527	1.00	14.84	A
ATOM	1169	C	THR	A	159	30.545	23.021	57.361	1.00	8.62	A
ATOM	1170	O	THR	A	159	29.878	22.956	58.398	1.00	7.39	A
ATOM	1171	N	THR	A	160	31.875	23.038	57.358	1.00	8.39	A
ATOM	1172	CA	THR	A	160	32.603	22.980	58.612	1.00	9.53	A
ATOM	1173	CB	THR	A	160	33.194	21.558	58.889	1.00	8.99	A
ATOM	1174	OG1	THR	A	160	34.011	21.140	57.788	1.00	12.55	A
ATOM	1175	CG2	THR	A	160	32.083	20.559	59.114	1.00	11.60	A
ATOM	1176	C	THR	A	160	33.727	24.010	58.712	1.00	10.20	A
ATOM	1177	O	THR	A	160	34.774	23.739	59.314	1.00	8.76	A
ATOM	1178	N	GLN	A	161	33.523	25.189	58.121	1.00	8.66	A
ATOM	1179	CA	GLN	A	161	34.525	26.260	58.254	1.00	9.46	A
ATOM	1180	CB	GLN	A	161	34.564	27.121	56.989	1.00	9.58	A
ATOM	1181	CG	GLN	A	161	34.956	26.309	55.742	1.00	7.83	A
ATOM	1182	CD	GLN	A	161	36.305	25.608	55.936	1.00	10.81	A
ATOM	1183	OE1	GLN	A	161	36.429	24.396	55.758	1.00	12.80	A
ATOM	1184	NE2	GLN	A	161	37.306	26.374	56.313	1.00	10.64	A
ATOM	1185	C	GLN	A	161	34.058	27.096	59.449	1.00	8.71	A
ATOM	1186	O	GLN	A	161	32.979	26.866	59.960	1.00	8.58	A
ATOM	1187	N	PRO	A	162	34.870	28.047	59.928	1.00	11.51	A
ATOM	1188	CD	PRO	A	162	36.316	28.193	59.693	1.00	10.65	A
ATOM	1189	CA	PRO	A	162	34.433	28.869	61.071	1.00	9.23	A
ATOM	1190	CB	PRO	A	162	35.631	29.780	61.326	1.00	11.89	A
ATOM	1191	CG	PRO	A	162	36.786	28.884	60.979	1.00	14.39	A
ATOM	1192	C	PRO	A	162	33.171	29.660	60.727	1.00	10.67	A
ATOM	1193	O	PRO	A	162	32.280	29.838	61.567	1.00	12.32	A
ATOM	1194	N	GLY	A	163	33.112	30.158	59.492	1.00	8.94	A
ATOM	1195	CA	GLY	A	163	31.943	30.903	59.040	1.00	11.83	A
ATOM	1196	C	GLY	A	163	31.307	30.149	57.883	1.00	11.53	A
ATOM	1197	O	GLY	A	163	31.687	28.989	57.628	1.00	9.27	A
ATOM	1198	N	THR	A	164	30.359	30.781	57.178	1.00	7.79	A
ATOM	1199	CA	THR	A	164	29.698	30.140	56.039	1.00	10.06	A
ATOM	1200	CB	THR	A	164	28.213	29.775	56.347	1.00	9.77	A
ATOM	1201	OG1	THR	A	164	27.565	30.914	56.934	1.00	12.97	A
ATOM	1202	CG2	THR	A	164	28.119	28.585	57.328	1.00	7.94	A
ATOM	1203	C	THR	A	164	29.696	31.081	54.837	1.00	10.41	A
ATOM	1204	O	THR	A	164	29.786	32.301	55.001	1.00	7.96	A
ATOM	1205	N	PHE	A	165	29.571	30.507	53.637	1.00	7.32	A
ATOM	1206	CA	PHE	A	165	29.551	31.275	52.395	1.00	9.34	A
ATOM	1207	CB	PHE	A	165	30.321	30.541	51.299	1.00	8.51	A
ATOM	1208	CG	PHE	A	165	31.799	30.451	51.539	1.00	7.69	A
ATOM	1209	CD1	PHE	A	165	32.659	31.455	51.096	1.00	8.05	A
ATOM	1210	CD2	PHE	A	165	32.338	29.338	52.181	1.00	10.52	A
ATOM	1211	CE1	PHE	A	165	34.062	31.349	51.288	1.00	6.48	A

FIGURE 5 (suite)

ATOM	1212	CE2	PHE	A	165	33.720	29.214	52.385	1.00	6.44	A
ATOM	1213	CZ	PHE	A	165	34.591	30.221	51.935	1.00	7.86	A
ATOM	1214	C	PHE	A	165	28.135	31.467	51.854	1.00	10.39	A
ATOM	1215	O	PHE	A	165	27.428	30.485	51.648	1.00	11.83	A
ATOM	1216	N	ALA	A	166	27.738	32.712	51.601	1.00	8.80	A
ATOM	1217	CA	ALA	A	166	26.424	33.000	51.006	1.00	10.97	A
ATOM	1218	CB	ALA	A	166	25.942	34.397	51.423	1.00	10.57	A
ATOM	1219	C	ALA	A	166	26.593	32.960	49.483	1.00	10.58	A
ATOM	1220	O	ALA	A	166	27.694	33.182	48.968	1.00	7.60	A
ATOM	1221	N	VAL	A	167	25.516	32.668	48.766	1.00	9.26	A
ATOM	1222	CA	VAL	A	167	25.572	32.658	47.303	1.00	7.71	A
ATOM	1223	CB	VAL	A	167	24.384	31.924	46.686	1.00	7.77	A
ATOM	1224	CG1	VAL	A	167	24.546	31.870	45.159	1.00	8.04	A
ATOM	1225	CG2	VAL	A	167	24.283	30.511	47.265	1.00	10.61	A
ATOM	1226	C	VAL	A	167	25.473	34.123	46.875	1.00	8.91	A
ATOM	1227	O	VAL	A	167	24.523	34.816	47.244	1.00	7.79	A
ATOM	1228	N	THR	A	168	26.408	34.580	46.048	1.00	8.13	A
ATOM	1229	CA	THR	A	168	26.411	35.974	45.653	1.00	6.66	A
ATOM	1230	CB	THR	A	168	27.060	36.810	46.769	1.00	13.46	A
ATOM	1231	OG1	THR	A	168	27.129	38.188	46.370	1.00	12.35	A
ATOM	1232	CG2	THR	A	168	28.478	36.311	47.040	1.00	12.28	A
ATOM	1233	C	THR	A	168	27.228	36.178	44.375	1.00	11.69	A
ATOM	1234	O	THR	A	168	27.960	35.282	43.947	1.00	11.22	A
ATOM	1235	N	THR	A	169	27.106	37.352	43.770	1.00	9.36	A
ATOM	1236	CA	THR	A	169	27.888	37.641	42.530	1.00	5.90	A
ATOM	1237	CB	THR	A	169	27.074	38.484	41.565	1.00	11.79	A
ATOM	1238	OG1	THR	A	169	26.724	39.739	42.159	1.00	9.77	A
ATOM	1239	CG2	THR	A	169	25.811	37.747	41.128	1.00	12.13	A
ATOM	1240	C	THR	A	169	29.156	38.450	42.953	1.00	9.03	A
ATOM	1241	O	THR	A	169	30.000	38.712	42.099	1.00	8.64	A
ATOM	1242	N	VAL	A	170	29.279	38.848	44.224	1.00	11.21	A
ATOM	1243	CA	VAL	A	170	30.430	39.641	44.680	1.00	11.07	A
ATOM	1244	CB	VAL	A	170	29.944	41.003	45.248	1.00	8.64	A
ATOM	1245	CG1	VAL	A	170	29.433	41.863	44.106	1.00	8.12	A
ATOM	1246	CG2	VAL	A	170	28.802	40.805	46.208	1.00	14.20	A
ATOM	1247	C	VAL	A	170	31.158	38.830	45.741	1.00	10.94	A
ATOM	1248	O	VAL	A	170	30.694	38.747	46.859	1.00	11.12	A
ATOM	1249	N	PHE	A	171	32.305	38.247	45.386	1.00	11.66	A
ATOM	1250	CA	PHE	A	171	33.003	37.367	46.312	1.00	9.52	A
ATOM	1251	CB	PHE	A	171	34.279	36.775	45.677	1.00	8.67	A
ATOM	1252	CG	PHE	A	171	34.940	35.686	46.519	1.00	10.69	A
ATOM	1253	CD1	PHE	A	171	36.009	35.978	47.358	1.00	9.84	A
ATOM	1254	CD2	PHE	A	171	34.457	34.377	46.502	1.00	14.44	A
ATOM	1255	CE1	PHE	A	171	36.593	34.986	48.184	1.00	8.85	A
ATOM	1256	CE2	PHE	A	171	35.024	33.377	47.311	1.00	12.76	A
ATOM	1257	CZ	PHE	A	171	36.096	33.686	48.158	1.00	12.60	A
ATOM	1258	C	PHE	A	171	33.353	37.977	47.661	1.00	12.55	A
ATOM	1259	O	PHE	A	171	33.292	37.294	48.679	1.00	7.64	A
ATOM	1260	N	ALA	A	172	33.704	39.257	47.677	1.00	6.57	A
ATOM	1261	CA	ALA	A	172	34.088	39.865	48.946	1.00	9.02	A
ATOM	1262	CB	ALA	A	172	34.655	41.279	48.721	1.00	9.26	A
ATOM	1263	C	ALA	A	172	32.948	39.885	49.957	1.00	11.22	A
ATOM	1264	O	ALA	A	172	33.188	40.071	51.155	1.00	10.96	A
ATOM	1265	N	ASN	A	173	31.714	39.677	49.493	1.00	8.23	A
ATOM	1266	CA	ASN	A	173	30.563	39.651	50.409	1.00	10.55	A
ATOM	1267	CB	ASN	A	173	29.361	40.396	49.822	1.00	11.87	A
ATOM	1268	CG	ASN	A	173	29.628	41.862	49.606	1.00	13.88	A
ATOM	1269	OD1	ASN	A	173	30.289	42.512	50.412	1.00	13.36	A
ATOM	1270	ND2	ASN	A	173	29.098	42.398	48.515	1.00	16.29	A
ATOM	1271	C	ASN	A	173	30.062	38.245	50.759	1.00	13.21	A
ATOM	1272	O	ASN	A	173	29.077	38.109	51.498	1.00	10.89	A
ATOM	1273	N	SER	A	174	30.716	37.212	50.238	1.00	7.67	A
ATOM	1274	CA	SER	A	174	30.250	35.859	50.468	1.00	9.24	A
ATOM	1275	CB	SER	A	174	30.869	34.905	49.429	1.00	9.01	A
ATOM	1276	OG	SER	A	174	30.359	33.580	49.598	1.00	8.15	A
ATOM	1277	C	SER	A	174	30.440	35.250	51.863	1.00	7.73	A
ATOM	1278	O	SER	A	174	29.480	34.822	52.506	1.00	8.54	A
ATOM	1279	N	TYR	A	175	31.684	35.160	52.303	1.00	6.67	A
ATOM	1280	CA	TYR	A	175	31.978	34.535	53.599	1.00	6.35	A
ATOM	1281	CB	TYR	A	175	33.493	34.371	53.735	1.00	7.83	A
ATOM	1282	CG	TYR	A	175	33.928	33.429	54.847	1.00	6.19	A
ATOM	1283	CD1	TYR	A	175	34.845	33.842	55.825	1.00	9.13	A
ATOM	1284	CE1	TYR	A	175	35.315	32.938	56.811	1.00	7.78	A
ATOM	1285	CD2	TYR	A	175	33.481	32.102	54.879	1.00	6.63	A
ATOM	1286	CE2	TYR	A	175	33.939	31.206	55.856	1.00	9.07	A
ATOM	1287	CZ	TYR	A	175	34.859	31.633	56.812	1.00	11.83	A

FIGURE 5 (suite)

ATOM	1288	OH	TYR	A	175	35.348	30.731	57.746	1.00	8.85	A
ATOM	1289	C	TYR	A	175	31.424	35.365	54.761	1.00	12.71	A
ATOM	1290	O	TYR	A	175	31.649	36.556	54.806	1.00	7.92	A
ATOM	1291	N	SER	A	176	30.695	34.727	55.683	1.00	9.13	A
ATOM	1292	CA	SER	A	176	30.104	35.431	56.828	1.00	9.94	A
ATOM	1293	CB	SER	A	176	29.372	34.433	57.737	1.00	11.72	A
ATOM	1294	OG	SER	A	176	30.248	33.426	58.245	1.00	9.80	A
ATOM	1295	C	SER	A	176	31.092	36.247	57.659	1.00	11.68	A
ATOM	1296	O	SER	A	176	30.737	37.302	58.184	1.00	12.94	A
ATOM	1297	N	LEU	A	177	32.332	35.787	57.788	1.00	10.90	A
ATOM	1298	CA	LEU	A	177	33.303	36.559	58.561	1.00	12.59	A
ATOM	1299	CB	LEU	A	177	34.231	35.613	59.349	1.00	14.55	A
ATOM	1300	CG	LEU	A	177	33.537	34.649	60.324	1.00	15.21	A
ATOM	1301	CD1	LEU	A	177	34.579	33.649	60.872	1.00	18.41	A
ATOM	1302	CD2	LEU	A	177	32.856	35.452	61.476	1.00	11.73	A
ATOM	1303	C	LEU	A	177	34.139	37.522	57.692	1.00	13.68	A
ATOM	1304	O	LEU	A	177	35.126	38.104	58.163	1.00	12.71	A
ATOM	1305	N	GLY	A	178	33.754	37.680	56.434	1.00	9.18	A
ATOM	1306	CA	GLY	A	178	34.475	38.585	55.541	1.00	12.34	A
ATOM	1307	C	GLY	A	178	35.803	38.098	54.975	1.00	12.74	A
ATOM	1308	O	GLY	A	178	36.205	36.939	55.208	1.00	13.97	A
ATOM	1309	N	LEU	A	179	36.492	38.974	54.224	1.00	9.84	A
ATOM	1310	CA	LEU	A	179	37.787	38.610	53.621	1.00	10.63	A
ATOM	1311	CB	LEU	A	179	38.078	39.437	52.350	1.00	11.33	A
ATOM	1312	CG	LEU	A	179	37.189	39.202	51.120	1.00	10.67	A
ATOM	1313	CD1	LEU	A	179	37.729	40.017	49.934	1.00	12.85	A
ATOM	1314	CD2	LEU	A	179	37.134	37.692	50.787	1.00	15.70	A
ATOM	1315	C	LEU	A	179	38.986	38.779	54.555	1.00	12.52	A
ATOM	1316	O	LEU	A	179	40.096	38.319	54.233	1.00	13.43	A
ATOM	1317	N	SER	A	180	38.788	39.426	55.702	1.00	13.88	A
ATOM	1318	CA	SER	A	180	39.910	39.635	56.612	1.00	17.84	A
ATOM	1319	CB	SER	A	180	39.438	40.187	57.954	1.00	23.37	A
ATOM	1320	OG	SER	A	180	39.006	41.521	57.770	1.00	30.75	A
ATOM	1321	C	SER	A	180	40.776	38.411	56.839	1.00	18.97	A
ATOM	1322	O	SER	A	180	41.990	38.527	56.856	1.00	16.57	A
ATOM	1323	N	PRO	A	181	40.170	37.223	57.010	1.00	17.96	A
ATOM	1324	CD	PRO	A	181	38.739	36.923	57.219	1.00	18.24	A
ATOM	1325	CA	PRO	A	181	40.989	36.023	57.228	1.00	19.35	A
ATOM	1326	CB	PRO	A	181	39.948	34.925	57.436	1.00	20.22	A
ATOM	1327	CG	PRO	A	181	38.804	35.657	58.063	1.00	20.57	A
ATOM	1328	C	PRO	A	181	41.927	35.697	56.063	1.00	24.47	A
ATOM	1329	O	PRO	A	181	42.893	34.943	56.237	1.00	26.18	A
ATOM	1330	N	LEU	A	182	41.646	36.251	54.880	1.00	17.84	A
ATOM	1331	CA	LEU	A	182	42.470	36.002	53.688	1.00	21.43	A
ATOM	1332	CB	LEU	A	182	41.615	36.019	52.410	1.00	20.15	A
ATOM	1333	CG	LEU	A	182	40.748	34.780	52.178	1.00	20.14	A
ATOM	1334	CD1	LEU	A	182	39.849	34.968	50.952	1.00	17.30	A
ATOM	1335	CD2	LEU	A	182	41.679	33.580	52.004	1.00	15.09	A
ATOM	1336	C	LEU	A	182	43.614	36.985	53.490	1.00	27.88	A
ATOM	1337	O	LEU	A	182	43.499	37.909	52.682	1.00	31.51	A
ATOM	1338	N	ALA	A	183	44.726	36.761	54.185	1.00	23.49	A
ATOM	1339	CA	ALA	A	183	45.893	37.639	54.073	1.00	26.24	A
ATOM	1340	CB	ALA	A	183	47.066	37.047	54.860	1.00	22.25	A
ATOM	1341	C	ALA	A	183	46.325	37.920	52.629	1.00	20.58	A
ATOM	1342	O	ALA	A	183	46.623	37.001	51.856	1.00	17.37	A
ATOM	1343	N	GLY	A	184	46.354	39.202	52.278	1.00	17.97	A
ATOM	1344	CA	GLY	A	184	46.762	39.603	50.949	1.00	17.46	A
ATOM	1345	C	GLY	A	184	45.908	39.186	49.755	1.00	12.78	A
ATOM	1346	O	GLY	A	184	46.413	39.159	48.636	1.00	15.39	A
ATOM	1347	N	ALA	A	185	44.634	38.878	49.956	1.00	12.15	A
ATOM	1348	CA	ALA	A	185	43.798	38.500	48.811	1.00	14.55	A
ATOM	1349	CB	ALA	A	185	42.374	38.212	49.271	1.00	14.22	A
ATOM	1350	C	ALA	A	185	43.812	39.649	47.795	1.00	16.74	A
ATOM	1351	O	ALA	A	185	43.780	40.826	48.181	1.00	15.66	A
ATOM	1352	N	VAL	A	186	43.836	39.300	46.507	1.00	9.90	A
ATOM	1353	CA	VAL	A	186	43.880	40.276	45.419	1.00	11.92	A
ATOM	1354	CB	VAL	A	186	45.093	39.969	44.484	1.00	14.98	A
ATOM	1355	CG1	VAL	A	186	45.026	40.816	43.229	1.00	13.29	A
ATOM	1356	CG2	VAL	A	186	46.398	40.226	45.244	1.00	19.64	A
ATOM	1357	C	VAL	A	186	42.608	40.254	44.571	1.00	11.79	A
ATOM	1358	O	VAL	A	186	42.152	39.182	44.149	1.00	11.34	A
ATOM	1359	N	ALA	A	187	42.035	41.430	44.331	1.00	11.06	A
ATOM	1360	CA	ALA	A	187	40.829	41.543	43.508	1.00	10.57	A
ATOM	1361	CB	ALA	A	187	39.897	42.606	44.096	1.00	12.53	A
ATOM	1362	C	ALA	A	187	41.211	41.923	42.079	1.00	13.16	A
ATOM	1363	O	ALA	A	187	42.128	42.736	41.876	1.00	14.58	A

FIGURE 5 (suite)

ATOM	1364	N	ALA	A	188	40.543	41.328	41.085	1.00	8.38	A
ATOM	1365	CA	ALA	A	188	40.832	41.672	39.672	1.00	8.09	A
ATOM	1366	CB	ALA	A	188	41.725	40.609	39.018	1.00	10.94	A
ATOM	1367	C	ALA	A	188	39.515	41.759	38.913	1.00	9.75	A
ATOM	1368	O	ALA	A	188	38.510	41.196	39.349	1.00	10.74	A
ATOM	1369	N	ILE	A	189	39.543	42.434	37.766	1.00	10.19	A
ATOM	1370	CA	ILE	A	189	38.355	42.646	36.936	1.00	9.71	A
ATOM	1371	CB	ILE	A	189	38.300	44.126	36.487	1.00	14.84	A
ATOM	1372	CG2	ILE	A	189	37.056	44.394	35.606	1.00	12.56	A
ATOM	1373	CG1	ILE	A	189	38.247	45.007	37.720	1.00	13.85	A
ATOM	1374	CD1	ILE	A	189	36.964	44.848	38.520	1.00	20.17	A
ATOM	1375	C	ILE	A	189	38.307	41.760	35.705	1.00	11.18	A
ATOM	1376	O	ILE	A	189	39.260	41.715	34.930	1.00	12.80	A
ATOM	1377	N	GLY	A	190	37.185	41.062	35.518	1.00	12.93	A
ATOM	1378	CA	GLY	A	190	37.039	40.181	34.368	1.00	9.66	A
ATOM	1379	C	GLY	A	190	37.836	38.881	34.432	1.00	11.20	A
ATOM	1380	O	GLY	A	190	38.763	38.745	35.238	1.00	12.00	A
ATOM	1381	N	SER	A	191	37.494	37.919	33.570	1.00	12.31	A
ATOM	1382	CA	SER	A	191	38.216	36.644	33.539	1.00	11.69	A
ATOM	1383	CB	SER	A	191	37.530	35.671	32.568	1.00	8.59	A
ATOM	1384	OG	SER	A	191	36.224	35.299	33.026	1.00	10.08	A
ATOM	1385	C	SER	A	191	39.678	36.896	33.104	1.00	14.30	A
ATOM	1386	O	SER	A	191	40.612	36.295	33.638	1.00	11.39	A
ATOM	1387	N	VAL	A	192	39.880	37.809	32.156	1.00	11.76	A
ATOM	1388	CA	VAL	A	192	41.235	38.101	31.704	1.00	14.84	A
ATOM	1389	CB	VAL	A	192	41.273	39.029	30.449	1.00	13.34	A
ATOM	1390	CG1	VAL	A	192	40.838	38.252	29.213	1.00	24.13	A
ATOM	1391	CG2	VAL	A	192	40.396	40.246	30.678	1.00	29.05	A
ATOM	1392	C	VAL	A	192	42.056	38.767	32.804	1.00	11.65	A
ATOM	1393	O	VAL	A	192	43.247	38.485	32.940	1.00	14.10	A
ATOM	1394	N	GLY	A	193	41.431	39.670	33.559	1.00	12.08	A
ATOM	1395	CA	GLY	A	193	42.149	40.344	34.626	1.00	12.16	A
ATOM	1396	C	GLY	A	193	42.575	39.354	35.700	1.00	14.30	A
ATOM	1397	O	GLY	A	193	43.652	39.486	36.291	1.00	9.20	A
ATOM	1398	N	VAL	A	194	41.725	38.369	35.976	1.00	9.32	A
ATOM	1399	CA	VAL	A	194	42.069	37.370	36.992	1.00	9.16	A
ATOM	1400	CB	VAL	A	194	40.845	36.459	37.341	1.00	7.74	A
ATOM	1401	CG1	VAL	A	194	41.309	35.168	38.071	1.00	8.55	A
ATOM	1402	CG2	VAL	A	194	39.873	37.247	38.259	1.00	11.33	A
ATOM	1403	C	VAL	A	194	43.256	36.524	36.530	1.00	10.65	A
ATOM	1404	O	VAL	A	194	44.158	36.255	37.318	1.00	10.00	A
ATOM	1405	N	MET	A	195	43.261	36.090	35.265	1.00	9.82	A
ATOM	1406	CA	MET	A	195	44.391	35.306	34.775	1.00	11.27	A
ATOM	1407	CB	MET	A	195	44.125	34.727	33.381	1.00	13.33	A
ATOM	1408	CG	MET	A	195	43.342	33.449	33.381	1.00	16.98	A
ATOM	1409	SD	MET	A	195	43.794	32.237	34.698	1.00	19.79	A
ATOM	1410	CE	MET	A	195	45.205	31.419	34.043	1.00	16.46	A
ATOM	1411	C	MET	A	195	45.672	36.118	34.719	1.00	12.67	A
ATOM	1412	O	MET	A	195	46.757	35.579	34.948	1.00	15.56	A
ATOM	1413	N	ALA	A	196	45.566	37.401	34.385	1.00	11.82	A
ATOM	1414	CA	ALA	A	196	46.750	38.239	34.346	1.00	15.74	A
ATOM	1415	CB	ALA	A	196	46.404	39.633	33.833	1.00	14.20	A
ATOM	1416	C	ALA	A	196	47.331	38.323	35.768	1.00	16.81	A
ATOM	1417	O	ALA	A	196	48.544	38.245	35.945	1.00	15.03	A
ATOM	1418	N	ALA	A	197	46.464	38.468	36.778	1.00	13.86	A
ATOM	1419	CA	ALA	A	197	46.939	38.538	38.151	1.00	13.25	A
ATOM	1420	CB	ALA	A	197	45.790	38.865	39.108	1.00	13.70	A
ATOM	1421	C	ALA	A	197	47.547	37.203	38.542	1.00	13.49	A
ATOM	1422	O	ALA	A	197	48.618	37.159	39.147	1.00	13.32	A
ATOM	1423	N	ASP	A	198	46.853	36.119	38.202	1.00	12.41	A
ATOM	1424	CA	ASP	A	198	47.326	34.777	38.547	1.00	16.61	A
ATOM	1425	CB	ASP	A	198	46.311	33.719	38.074	1.00	18.96	A
ATOM	1426	CG	ASP	A	198	46.605	32.327	38.629	1.00	29.19	A
ATOM	1427	OD1	ASP	A	198	46.440	32.107	39.857	1.00	32.24	A
ATOM	1428	OD2	ASP	A	198	47.004	31.449	37.834	1.00	34.04	A
ATOM	1429	C	ASP	A	198	48.699	34.509	37.928	1.00	17.95	A
ATOM	1430	O	ASP	A	198	49.570	33.942	38.585	1.00	18.27	A
ATOM	1431	N	ASN	A	199	48.900	34.941	36.684	1.00	16.24	A
ATOM	1432	CA	ASN	A	199	50.173	34.733	35.980	1.00	17.75	A
ATOM	1433	CB	ASN	A	199	49.941	34.565	34.478	1.00	19.50	A
ATOM	1434	CG	ASN	A	199	49.270	33.263	34.122	1.00	21.16	A
ATOM	1435	OD1	ASN	A	199	49.454	32.254	34.786	1.00	29.31	A
ATOM	1436	ND2	ASN	A	199	48.504	33.275	33.041	1.00	24.39	A
ATOM	1437	C	ASN	A	199	51.227	35.832	36.144	1.00	20.64	A
ATOM	1438	O	ASN	A	199	52.272	35.762	35.507	1.00	27.47	A
ATOM	1439	N	ASP	A	200	50.973	36.838	36.970	1.00	19.22	A

FIGURE 5 (suite)

ATOM	1440	CA	ASP	A	200	51.925	37.937	37.148	1.00	20.54	A
ATOM	1441	CB	ASP	A	200	51.350	38.985	38.092	1.00	22.32	A
ATOM	1442	CG	ASP	A	200	52.166	40.271	38.105	1.00	23.11	A
ATOM	1443	OD1	ASP	A	200	53.356	40.256	37.713	1.00	21.11	A
ATOM	1444	OD2	ASP	A	200	51.612	41.296	38.526	1.00	26.57	A
ATOM	1445	C	ASP	A	200	53.252	37.431	37.716	1.00	21.98	A
ATOM	1446	O	ASP	A	200	53.315	36.967	38.855	1.00	19.25	A
ATOM	1447	N	VAL	A	201	54.315	37.511	36.922	1.00	21.71	A
ATOM	1448	CA	VAL	A	201	55.611	37.033	37.390	1.00	24.01	A
ATOM	1449	CB	VAL	A	201	56.519	36.597	36.216	1.00	23.59	A
ATOM	1450	CG1	VAL	A	201	55.910	35.377	35.519	1.00	25.93	A
ATOM	1451	CG2	VAL	A	201	56.710	37.754	35.246	1.00	26.53	A
ATOM	1452	C	VAL	A	201	56.370	38.046	38.222	1.00	24.27	A
ATOM	1453	O	VAL	A	201	57.451	37.744	38.715	1.00	30.90	A
ATOM	1454	N	THR	A	202	55.817	39.241	38.402	1.00	23.14	A
ATOM	1455	CA	THR	A	202	56.511	40.251	39.190	1.00	23.53	A
ATOM	1456	CB	THR	A	202	56.216	41.664	38.696	1.00	22.33	A
ATOM	1457	OG1	THR	A	202	54.846	41.999	38.979	1.00	24.30	A
ATOM	1458	CG2	THR	A	202	56.489	41.759	37.210	1.00	25.94	A
ATOM	1459	C	THR	A	202	56.171	40.184	40.677	1.00	24.49	A
ATOM	1460	O	THR	A	202	56.543	41.073	41.444	1.00	25.68	A
ATOM	1461	N	THR	A	203	55.440	39.147	41.076	1.00	19.97	A
ATOM	1462	CA	THR	A	203	55.116	38.957	42.484	1.00	20.69	A
ATOM	1463	CB	THR	A	203	53.608	39.167	42.768	1.00	26.13	A
ATOM	1464	OG1	THR	A	203	52.825	38.196	42.047	1.00	25.13	A
ATOM	1465	CG2	THR	A	203	53.202	40.581	42.363	1.00	26.59	A
ATOM	1466	C	THR	A	203	55.523	37.521	42.834	1.00	17.47	A
ATOM	1467	O	THR	A	203	55.771	36.703	41.947	1.00	18.21	A
ATOM	1468	N	ALA	A	204	55.624	37.217	44.116	1.00	16.96	A
ATOM	1469	CA	ALA	A	204	56.011	35.867	44.528	1.00	16.26	A
ATOM	1470	CB	ALA	A	204	56.175	35.825	46.065	1.00	18.50	A
ATOM	1471	C	ALA	A	204	54.978	34.832	44.092	1.00	14.92	A
ATOM	1472	O	ALA	A	204	53.806	35.157	43.906	1.00	16.09	A
ATOM	1473	N	GLN	A	205	55.409	33.582	43.921	1.00	16.21	A
ATOM	1474	CA	GLN	A	205	54.483	32.501	43.560	1.00	16.27	A
ATOM	1475	CB	GLN	A	205	55.232	31.191	43.316	1.00	15.65	A
ATOM	1476	CG	GLN	A	205	56.103	31.148	42.097	1.00	22.41	A
ATOM	1477	CD	GLN	A	205	56.469	29.716	41.717	1.00	29.28	A
ATOM	1478	OE1	GLN	A	205	56.446	28.801	42.565	1.00	20.67	A
ATOM	1479	NE2	GLN	A	205	56.813	29.510	40.442	1.00	25.77	A
ATOM	1480	C	GLN	A	205	53.529	32.262	44.728	1.00	14.53	A
ATOM	1481	O	GLN	A	205	53.783	32.717	45.846	1.00	14.81	A
ATOM	1482	N	GLY	A	206	52.433	31.540	44.478	1.00	11.64	A
ATOM	1483	CA	GLY	A	206	51.509	31.236	45.554	1.00	11.46	A
ATOM	1484	C	GLY	A	206	50.042	31.518	45.284	1.00	11.44	A
ATOM	1485	O	GLY	A	206	49.162	31.067	46.046	1.00	9.87	A
ATOM	1486	N	ARG	A	207	49.764	32.236	44.199	1.00	7.71	A
ATOM	1487	CA	ARG	A	207	48.383	32.606	43.878	1.00	7.50	A
ATOM	1488	CB	ARG	A	207	48.364	33.763	42.863	1.00	9.66	A
ATOM	1489	CG	ARG	A	207	48.719	35.114	43.493	1.00	7.35	A
ATOM	1490	CD	ARG	A	207	48.774	36.286	42.497	1.00	6.76	A
ATOM	1491	NE	ARG	A	207	49.079	37.532	43.221	1.00	10.86	A
ATOM	1492	CZ	ARG	A	207	49.156	38.738	42.654	1.00	13.78	A
ATOM	1493	NH1	ARG	A	207	48.957	38.881	41.350	1.00	9.77	A
ATOM	1494	NH2	ARG	A	207	49.415	39.811	43.398	1.00	15.04	A
ATOM	1495	C	ARG	A	207	47.500	31.475	43.389	1.00	11.20	A
ATOM	1496	O	ARG	A	207	47.959	30.549	42.713	1.00	12.10	A
ATOM	1497	N	ILE	A	208	46.214	31.572	43.721	1.00	8.65	A
ATOM	1498	CA	ILE	A	208	45.245	30.557	43.331	1.00	8.62	A
ATOM	1499	CB	ILE	A	208	45.073	29.491	44.476	1.00	11.42	A
ATOM	1500	CG2	ILE	A	208	44.533	30.157	45.766	1.00	8.84	A
ATOM	1501	CG1	ILE	A	208	44.158	28.359	43.984	1.00	12.09	A
ATOM	1502	CD1	ILE	A	208	44.207	27.094	44.823	1.00	11.77	A
ATOM	1503	C	ILE	A	208	43.924	31.286	43.056	1.00	10.31	A
ATOM	1504	O	ILE	A	208	43.664	32.335	43.649	1.00	12.81	A
ATOM	1505	N	THR	A	209	43.098	30.776	42.145	1.00	7.78	A
ATOM	1506	CA	THR	A	209	41.825	31.470	41.864	1.00	9.01	A
ATOM	1507	CB	THR	A	209	42.055	32.610	40.849	1.00	11.48	A
ATOM	1508	OG1	THR	A	209	40.906	33.455	40.789	1.00	11.18	A
ATOM	1509	CG2	THR	A	209	42.310	32.030	39.460	1.00	12.27	A
ATOM	1510	C	THR	A	209	40.751	30.534	41.319	1.00	10.48	A
ATOM	1511	O	THR	A	209	40.978	29.326	41.215	1.00	10.85	A
ATOM	1512	N	TYR	A	210	39.577	31.087	40.997	1.00	8.58	A
ATOM	1513	CA	TYR	A	210	38.476	30.303	40.422	1.00	8.34	A
ATOM	1514	CB	TYR	A	210	37.244	30.304	41.350	1.00	4.35	A
ATOM	1515	CG	TYR	A	210	36.685	31.664	41.695	1.00	7.98	A

FIGURE 5 (suite)

ATOM	1516	CD1	TYR	A	210	35.656	32.240	40.927	1.00	6.11	A
ATOM	1517	CE1	TYR	A	210	35.153	33.509	41.235	1.00	7.73	A
ATOM	1518	CD2	TYR	A	210	37.188	32.386	42.778	1.00	6.57	A
ATOM	1519	CE2	TYR	A	210	36.699	33.643	43.086	1.00	5.93	A
ATOM	1520	CZ	TYR	A	210	35.687	34.203	42.313	1.00	8.47	A
ATOM	1521	OH	TYR	A	210	35.242	35.475	42.598	1.00	8.24	A
ATOM	1522	C	TYR	A	210	38.169	30.983	39.087	1.00	5.52	A
ATOM	1523	O	TYR	A	210	38.184	32.222	39.010	1.00	9.37	A
ATOM	1524	N	ILE	A	211	37.934	30.201	38.032	1.00	6.28	A
ATOM	1525	CA	ILE	A	211	37.720	30.832	36.735	1.00	7.52	A
ATOM	1526	CB	ILE	A	211	39.085	31.384	36.235	1.00	11.97	A
ATOM	1527	CG2	ILE	A	211	39.990	30.231	35.830	1.00	10.21	A
ATOM	1528	CG1	ILE	A	211	38.902	32.361	35.075	1.00	14.62	A
ATOM	1529	CD1	ILE	A	211	40.159	33.203	34.806	1.00	15.71	A
ATOM	1530	C	ILE	A	211	37.132	29.936	35.648	1.00	8.22	A
ATOM	1531	O	ILE	A	211	37.080	28.703	35.778	1.00	8.13	A
ATOM	1532	N	SER	A	212	36.634	30.590	34.602	1.00	9.06	A
ATOM	1533	CA	SER	A	212	36.140	29.913	33.394	1.00	9.98	A
ATOM	1534	CB	SER	A	212	35.984	30.934	32.256	1.00	8.45	A
ATOM	1535	OG	SER	A	212	35.637	30.283	31.037	1.00	9.53	A
ATOM	1536	C	SER	A	212	37.181	28.904	32.914	1.00	10.00	A
ATOM	1537	O	SER	A	212	38.361	29.234	32.812	1.00	7.50	A
ATOM	1538	N	PRO	A	213	36.761	27.668	32.585	1.00	8.50	A
ATOM	1539	CD	PRO	A	213	35.436	27.030	32.686	1.00	4.78	A
ATOM	1540	CA	PRO	A	213	37.781	26.728	32.117	1.00	8.39	A
ATOM	1541	CB	PRO	A	213	37.035	25.392	32.059	1.00	10.29	A
ATOM	1542	CG	PRO	A	213	35.578	25.849	31.743	1.00	9.33	A
ATOM	1543	C	PRO	A	213	38.360	27.149	30.777	1.00	10.79	A
ATOM	1544	O	PRO	A	213	39.433	26.698	30.390	1.00	10.83	A
ATOM	1545	N	ASP	A	214	37.668	28.038	30.074	1.00	5.80	A
ATOM	1546	CA	ASP	A	214	38.164	28.514	28.775	1.00	8.50	A
ATOM	1547	CB	ASP	A	214	37.033	29.175	27.997	1.00	7.35	A
ATOM	1548	CG	ASP	A	214	37.248	29.146	26.497	1.00	11.12	A
ATOM	1549	OD1	ASP	A	214	36.479	29.849	25.801	1.00	11.42	A
ATOM	1550	OD2	ASP	A	214	38.159	28.428	26.007	1.00	10.72	A
ATOM	1551	C	ASP	A	214	39.314	29.526	28.935	1.00	12.08	A
ATOM	1552	O	ASP	A	214	39.933	29.931	27.943	1.00	13.08	A
ATOM	1553	N	PHE	A	215	39.572	29.958	30.170	1.00	9.47	A
ATOM	1554	CA	PHE	A	215	40.662	30.901	30.459	1.00	9.63	A
ATOM	1555	CB	PHE	A	215	40.121	32.106	31.233	1.00	12.63	A
ATOM	1556	CG	PHE	A	215	39.375	33.081	30.402	1.00	9.86	A
ATOM	1557	CD1	PHE	A	215	39.957	34.301	30.067	1.00	11.72	A
ATOM	1558	CD2	PHE	A	215	38.074	32.812	29.986	1.00	11.34	A
ATOM	1559	CE1	PHE	A	215	39.250	35.250	29.332	1.00	11.89	A
ATOM	1560	CE2	PHE	A	215	37.357	33.759	29.245	1.00	6.37	A
ATOM	1561	CZ	PHE	A	215	37.949	34.976	28.921	1.00	13.90	A
ATOM	1562	C	PHE	A	215	41.748	30.286	31.356	1.00	13.88	A
ATOM	1563	O	PHE	A	215	42.837	30.865	31.480	1.00	12.28	A
ATOM	1564	N	ALA	A	216	41.463	29.131	31.976	1.00	9.02	A
ATOM	1565	CA	ALA	A	216	42.404	28.535	32.936	1.00	9.41	A
ATOM	1566	CB	ALA	A	216	41.705	27.432	33.753	1.00	9.18	A
ATOM	1567	C	ALA	A	216	43.727	28.007	32.406	1.00	13.18	A
ATOM	1568	O	ALA	A	216	44.679	27.844	33.178	1.00	16.82	A
ATOM	1569	N	ALA	A	217	43.790	27.719	31.106	1.00	12.39	A
ATOM	1570	CA	ALA	A	217	45.031	27.224	30.522	1.00	14.59	A
ATOM	1571	CB	ALA	A	217	45.094	25.693	30.625	1.00	15.34	A
ATOM	1572	C	ALA	A	217	45.136	27.660	29.063	1.00	16.52	A
ATOM	1573	O	ALA	A	217	44.128	27.958	28.418	1.00	14.71	A
ATOM	1574	N	PRO	A	218	46.358	27.690	28.517	1.00	18.85	A
ATOM	1575	CD	PRO	A	218	47.657	27.532	29.194	1.00	19.53	A
ATOM	1576	CA	PRO	A	218	46.533	28.101	27.111	1.00	17.17	A
ATOM	1577	CB	PRO	A	218	48.053	28.171	26.952	1.00	22.03	A
ATOM	1578	CG	PRO	A	218	48.553	28.433	28.357	1.00	24.10	A
ATOM	1579	C	PRO	A	218	45.889	27.162	26.076	1.00	17.95	A
ATOM	1580	O	PRO	A	218	45.490	27.606	24.986	1.00	20.60	A
ATOM	1581	N	SER	A	219	45.804	25.872	26.395	1.00	12.39	A
ATOM	1582	CA	SER	A	219	45.212	24.883	25.490	1.00	11.61	A
ATOM	1583	CB	SER	A	219	46.308	24.053	24.816	1.00	17.69	A
ATOM	1584	OG	SER	A	219	46.870	23.140	25.749	1.00	17.25	A
ATOM	1585	C	SER	A	219	44.341	23.942	26.324	1.00	14.52	A
ATOM	1586	O	SER	A	219	44.454	23.896	27.559	1.00	15.86	A
ATOM	1587	N	LEU	A	220	43.479	23.180	25.664	1.00	13.85	A
ATOM	1588	CA	LEU	A	220	42.614	22.250	26.389	1.00	13.63	A
ATOM	1589	CB	LEU	A	220	41.705	21.491	25.401	1.00	15.59	A
ATOM	1590	CG	LEU	A	220	40.632	22.337	24.707	1.00	16.07	A
ATOM	1591	CD1	LEU	A	220	39.908	21.517	23.646	1.00	15.58	A

FIGURE 5 (suite)

ATOM	1592	CD2	LEU	A	220	39.635	22.855	25.752	1.00	16.33	A
ATOM	1593	C	LEU	A	220	43.401	21.251	27.245	1.00	15.71	A
ATOM	1594	O	LEU	A	220	43.034	20.986	28.395	1.00	15.65	A
ATOM	1595	N	ALA	A	221	44.481	20.693	26.698	1.00	15.60	A
ATOM	1596	CA	ALA	A	221	45.283	19.714	27.452	1.00	18.03	A
ATOM	1597	CB	ALA	A	221	46.452	19.175	26.604	1.00	17.58	A
ATOM	1598	C	ALA	A	221	45.834	20.298	28.738	1.00	11.01	A
ATOM	1599	O	ALA	A	221	46.085	19.573	29.687	1.00	15.45	A
ATOM	1600	N	GLY	A	222	46.038	21.612	28.754	1.00	15.25	A
ATOM	1601	CA	GLY	A	222	46.561	22.267	29.947	1.00	11.71	A
ATOM	1602	C	GLY	A	222	45.641	22.101	31.144	1.00	10.72	A
ATOM	1603	O	GLY	A	222	46.105	22.139	32.280	1.00	14.13	A
ATOM	1604	N	LEU	A	223	44.340	21.938	30.914	1.00	11.19	A
ATOM	1605	CA	LEU	A	223	43.406	21.751	32.033	1.00	8.14	A
ATOM	1606	CB	LEU	A	223	41.946	21.728	31.525	1.00	9.90	A
ATOM	1607	CG	LEU	A	223	41.481	23.046	30.874	1.00	9.91	A
ATOM	1608	CD1	LEU	A	223	40.035	22.918	30.331	1.00	9.85	A
ATOM	1609	CD2	LEU	A	223	41.570	24.153	31.926	1.00	9.05	A
ATOM	1610	C	LEU	A	223	43.720	20.444	32.773	1.00	11.22	A
ATOM	1611	O	LEU	A	223	43.369	20.297	33.939	1.00	7.21	A
ATOM	1612	N	ASN	A	224	44.389	19.505	32.100	1.00	9.60	A
ATOM	1613	CA	ASN	A	224	44.742	18.231	32.727	1.00	10.35	A
ATOM	1614	CB	ASN	A	224	44.651	17.078	31.706	1.00	13.70	A
ATOM	1615	CG	ASN	A	224	43.214	16.768	31.301	1.00	15.75	A
ATOM	1616	OD1	ASN	A	224	42.347	16.610	32.146	1.00	21.72	A
ATOM	1617	ND2	ASN	A	224	42.968	16.666	30.012	1.00	14.86	A
ATOM	1618	C	ASN	A	224	46.138	18.239	33.359	1.00	12.93	A
ATOM	1619	O	ASN	A	224	46.580	17.226	33.898	1.00	14.86	A
ATOM	1620	N	ASP	A	225	46.833	19.370	33.308	1.00	8.74	A
ATOM	1621	CA	ASP	A	225	48.163	19.437	33.932	1.00	12.69	A
ATOM	1622	CB	ASP	A	225	49.031	20.467	33.199	1.00	11.40	A
ATOM	1623	CG	ASP	A	225	50.402	20.654	33.843	1.00	15.89	A
ATOM	1624	OD1	ASP	A	225	50.673	20.076	34.922	1.00	14.10	A
ATOM	1625	OD2	ASP	A	225	51.211	21.401	33.261	1.00	16.19	A
ATOM	1626	C	ASP	A	225	47.960	19.844	35.398	1.00	13.53	A
ATOM	1627	O	ASP	A	225	47.776	21.016	35.691	1.00	10.79	A
ATOM	1628	N	ALA	A	226	48.035	18.882	36.317	1.00	10.49	A
ATOM	1629	CA	ALA	A	226	47.792	19.178	37.720	1.00	9.18	A
ATOM	1630	CB	ALA	A	226	47.424	17.889	38.478	1.00	13.20	A
ATOM	1631	C	ALA	A	226	48.881	19.939	38.461	1.00	12.23	A
ATOM	1632	O	ALA	A	226	48.773	20.144	39.678	1.00	13.15	A
ATOM	1633	N	THR	A	227	49.935	20.347	37.762	1.00	10.64	A
ATOM	1634	CA	THR	A	227	50.955	21.148	38.426	1.00	10.50	A
ATOM	1635	CB	THR	A	227	52.405	20.854	37.917	1.00	15.63	A
ATOM	1636	OG1	THR	A	227	52.541	21.287	36.561	1.00	13.88	A
ATOM	1637	CG2	THR	A	227	52.718	19.374	38.009	1.00	16.59	A
ATOM	1638	C	THR	A	227	50.620	22.628	38.154	1.00	9.17	A
ATOM	1639	O	THR	A	227	51.320	23.509	38.626	1.00	10.52	A
ATOM	1640	N	LYS	A	228	49.530	22.876	37.414	1.00	9.27	A
ATOM	1641	CA	LYS	A	228	49.079	24.226	37.069	1.00	12.05	A
ATOM	1642	CB	LYS	A	228	49.378	24.511	35.594	1.00	15.38	A
ATOM	1643	CG	LYS	A	228	50.877	24.607	35.272	1.00	22.71	A
ATOM	1644	CD	LYS	A	228	51.125	24.652	33.758	1.00	20.66	A
ATOM	1645	CE	LYS	A	228	52.613	24.720	33.447	1.00	26.84	A
ATOM	1646	NZ	LYS	A	228	53.205	25.974	33.986	1.00	37.16	A
ATOM	1647	C	LYS	A	228	47.576	24.453	37.313	1.00	8.78	A
ATOM	1648	O	LYS	A	228	47.153	25.574	37.634	1.00	9.99	A
ATOM	1649	N	VAL	A	229	46.777	23.407	37.100	1.00	9.98	A
ATOM	1650	CA	VAL	A	229	45.327	23.465	37.262	1.00	6.71	A
ATOM	1651	CB	VAL	A	229	44.611	23.300	35.939	1.00	8.87	A
ATOM	1652	CG1	VAL	A	229	43.082	23.303	36.150	1.00	10.77	A
ATOM	1653	CG2	VAL	A	229	45.019	24.468	34.988	1.00	10.90	A
ATOM	1654	C	VAL	A	229	44.913	22.339	38.245	1.00	10.51	A
ATOM	1655	O	VAL	A	229	45.107	21.154	37.967	1.00	8.04	A
ATOM	1656	N	ALA	A	230	44.343	22.706	39.383	1.00	10.29	A
ATOM	1657	CA	ALA	A	230	43.985	21.696	40.387	1.00	8.30	A
ATOM	1658	CB	ALA	A	230	43.612	22.380	41.677	1.00	10.71	A
ATOM	1659	C	ALA	A	230	42.900	20.691	40.064	1.00	12.18	A
ATOM	1660	O	ALA	A	230	41.884	21.020	39.435	1.00	12.58	A
ATOM	1661	N	ARG	A	231	43.120	19.452	40.501	1.00	8.23	A
ATOM	1662	CA	ARG	A	231	42.080	18.436	40.382	1.00	8.98	A
ATOM	1663	CB	ARG	A	231	42.656	17.021	40.495	1.00	11.67	A
ATOM	1664	CG	ARG	A	231	43.433	16.581	39.265	1.00	14.58	A
ATOM	1665	CD	ARG	A	231	44.130	15.244	39.487	1.00	18.76	A
ATOM	1666	NE	ARG	A	231	44.972	14.941	38.336	1.00	19.63	A
ATOM	1667	CZ	ARG	A	231	45.931	14.029	38.331	1.00	26.24	A

FIGURE 5 (suite)

ATOM	1668	NH1	ARG	A	231	46.184	13.312	39.426	1.00	22.17	A
ATOM	1669	NH2	ARG	A	231	46.649	13.848	37.228	1.00	31.31	A
ATOM	1670	C	ARG	A	231	41.271	18.738	41.632	1.00	8.66	A
ATOM	1671	O	ARG	A	231	41.801	19.332	42.582	1.00	13.24	A
ATOM	1672	N	THR	A	232	39.997	18.371	41.640	1.00	9.11	A
ATOM	1673	CA	THR	A	232	39.180	18.607	42.822	1.00	11.84	A
ATOM	1674	CB	THR	A	232	38.236	19.820	42.623	1.00	13.64	A
ATOM	1675	OG1	THR	A	232	39.017	21.004	42.384	1.00	17.60	A
ATOM	1676	CG2	THR	A	232	37.382	20.025	43.883	1.00	14.43	A
ATOM	1677	C	THR	A	232	38.357	17.351	43.071	1.00	9.12	A
ATOM	1678	O	THR	A	232	37.869	16.747	42.118	1.00	13.13	A
ATOM	1679	N	GLY	A	233	38.240	16.934	44.332	1.00	9.55	A
ATOM	1680	CA	GLY	A	233	37.466	15.739	44.636	1.00	13.57	A
ATOM	1681	C	GLY	A	233	38.197	14.616	45.364	1.00	14.09	A
ATOM	1682	O	GLY	A	233	37.634	13.556	45.591	1.00	16.30	A
ATOM	1683	N	LYS	A	234	39.460	14.831	45.706	1.00	14.67	A
ATOM	1684	CA	LYS	A	234	40.226	13.834	46.438	1.00	15.04	A
ATOM	1685	CB	LYS	A	234	41.577	14.442	46.830	1.00	13.37	A
ATOM	1686	CG	LYS	A	234	42.483	13.576	47.688	1.00	14.40	A
ATOM	1687	CD	LYS	A	234	43.807	14.314	47.968	1.00	17.84	A
ATOM	1688	CE	LYS	A	234	43.594	15.567	48.839	1.00	15.78	A
ATOM	1689	NZ	LYS	A	234	44.766	16.501	48.832	1.00	12.74	A
ATOM	1690	C	LYS	A	234	39.450	13.411	47.697	1.00	17.96	A
ATOM	1691	O	LYS	A	234	38.826	14.240	48.369	1.00	13.45	A
ATOM	1692	N	GLY	A	235	39.489	12.124	48.031	1.00	15.80	A
ATOM	1693	CA	GLY	A	235	38.785	11.694	49.223	1.00	15.51	A
ATOM	1694	C	GLY	A	235	38.764	10.191	49.402	1.00	19.91	A
ATOM	1695	O	GLY	A	235	39.586	9.472	48.825	1.00	21.77	A
ATOM	1696	N	SER	A	236	37.811	9.731	50.204	1.00	21.18	A
ATOM	1697	CA	SER	A	236	37.624	8.311	50.489	1.00	24.63	A
ATOM	1698	CB	SER	A	236	38.018	8.004	51.929	1.00	25.33	A
ATOM	1699	OG	SER	A	236	39.359	8.397	52.161	1.00	33.33	A
ATOM	1700	C	SER	A	236	36.159	7.969	50.291	1.00	26.45	A
ATOM	1701	O	SER	A	236	35.282	8.624	50.855	1.00	27.89	A
ATOM	1702	N	SER	A	237	35.891	6.947	49.488	1.00	22.58	A
ATOM	1703	CA	SER	A	237	34.522	6.520	49.238	1.00	23.79	A
ATOM	1704	CB	SER	A	237	34.123	6.799	47.786	1.00	25.37	A
ATOM	1705	OG	SER	A	237	34.019	8.197	47.578	1.00	38.24	A
ATOM	1706	C	SER	A	237	34.429	5.036	49.514	1.00	21.92	A
ATOM	1707	O	SER	A	237	35.244	4.267	49.009	1.00	20.25	A
ATOM	1708	N	SER	A	238	33.423	4.640	50.295	1.00	25.14	A
ATOM	1709	CA	SER	A	238	33.233	3.236	50.662	1.00	24.45	A
ATOM	1710	CB	SER	A	238	32.716	2.427	49.471	1.00	27.22	A
ATOM	1711	OG	SER	A	238	31.371	2.785	49.163	1.00	39.35	A
ATOM	1712	C	SER	A	238	34.559	2.670	51.159	1.00	23.39	A
ATOM	1713	O	SER	A	238	34.961	1.557	50.809	1.00	24.29	A
ATOM	1714	N	GLY	A	239	35.249	3.468	51.966	1.00	24.50	A
ATOM	1715	CA	GLY	A	239	36.519	3.040	52.524	1.00	25.11	A
ATOM	1716	C	GLY	A	239	37.705	2.973	51.584	1.00	28.40	A
ATOM	1717	O	GLY	A	239	38.755	2.452	51.969	1.00	28.03	A
ATOM	1718	N	GLY	A	240	37.563	3.495	50.365	1.00	21.59	A
ATOM	1719	CA	GLY	A	240	38.677	3.459	49.431	1.00	26.05	A
ATOM	1720	C	GLY	A	240	39.082	4.858	48.984	1.00	24.32	A
ATOM	1721	O	GLY	A	240	38.218	5.685	48.714	1.00	23.70	A
ATOM	1722	N	GLY	A	241	40.386	5.121	48.920	1.00	21.49	A
ATOM	1723	CA	GLY	A	241	40.873	6.422	48.500	1.00	27.38	A
ATOM	1724	C	GLY	A	241	40.495	6.715	47.058	1.00	28.81	A
ATOM	1725	O	GLY	A	241	40.585	5.840	46.200	1.00	28.58	A
ATOM	1726	N	ALA	A	242	40.057	7.939	46.784	1.00	24.66	A
ATOM	1727	CA	ALA	A	242	39.663	8.303	45.434	1.00	22.08	A
ATOM	1728	CB	ALA	A	242	38.159	8.527	45.367	1.00	25.95	A
ATOM	1729	C	ALA	A	242	40.385	9.573	45.043	1.00	22.46	A
ATOM	1730	O	ALA	A	242	40.541	10.472	45.869	1.00	16.67	A
ATOM	1731	N	GLU	A	243	40.813	9.647	43.785	1.00	16.24	A
ATOM	1732	CA	GLU	A	243	41.502	10.830	43.289	1.00	18.78	A
ATOM	1733	CB	GLU	A	243	42.444	10.473	42.132	1.00	23.30	A
ATOM	1734	CG	GLU	A	243	43.643	9.624	42.499	1.00	31.37	A
ATOM	1735	CD	GLU	A	243	44.658	9.584	41.368	1.00	37.64	A
ATOM	1736	OE1	GLU	A	243	44.234	9.507	40.195	1.00	38.59	A
ATOM	1737	OE2	GLU	A	243	45.876	9.628	41.644	1.00	41.94	A
ATOM	1738	C	GLU	A	243	40.469	11.817	42.757	1.00	15.80	A
ATOM	1739	O	GLU	A	243	39.417	11.406	42.285	1.00	17.65	A
ATOM	1740	N	GLY	A	244	40.765	13.111	42.827	1.00	15.34	A
ATOM	1741	CA	GLY	A	244	39.832	14.101	42.286	1.00	16.23	A
ATOM	1742	C	GLY	A	244	39.994	14.161	40.770	1.00	16.48	A
ATOM	1743	O	GLY	A	244	40.894	13.528	40.228	1.00	14.37	A

FIGURE 5 (suite)

ATOM	1744	N	LYS	A	245	39.148	14.939	40.096	1.00	14.99	A
ATOM	1745	CA	LYS	A	245	39.186	15.079	38.632	1.00	14.88	A
ATOM	1746	CB	LYS	A	245	37.792	14.795	38.060	1.00	13.06	A
ATOM	1747	CG	LYS	A	245	37.294	13.363	38.289	1.00	22.95	A
ATOM	1748	CD	LYS	A	245	38.174	12.353	37.540	1.00	27.44	A
ATOM	1749	CE	LYS	A	245	37.596	10.939	37.643	1.00	27.64	A
ATOM	1750	NZ	LYS	A	245	37.298	10.599	39.063	1.00	36.34	A
ATOM	1751	C	LYS	A	245	39.617	16.471	38.165	1.00	13.81	A
ATOM	1752	O	LYS	A	245	39.580	17.431	38.932	1.00	10.66	A
ATOM	1753	N	SER	A	246	40.022	16.572	36.902	1.00	14.72	A
ATOM	1754	CA	SER	A	246	40.405	17.856	36.344	1.00	11.87	A
ATOM	1755	CB	SER	A	246	41.299	17.687	35.104	1.00	12.31	A
ATOM	1756	OG	SER	A	246	40.515	17.215	34.011	1.00	9.67	A
ATOM	1757	C	SER	A	246	39.095	18.500	35.913	1.00	10.79	A
ATOM	1758	O	SER	A	246	38.076	17.815	35.735	1.00	10.08	A
ATOM	1759	N	PRO	A	247	39.114	19.825	35.698	1.00	10.98	A
ATOM	1760	CD	PRO	A	247	40.243	20.747	35.947	1.00	7.03	A
ATOM	1761	CA	PRO	A	247	37.909	20.545	35.275	1.00	9.29	A
ATOM	1762	CB	PRO	A	247	38.210	21.988	35.692	1.00	7.19	A
ATOM	1763	CG	PRO	A	247	39.737	22.094	35.385	1.00	9.12	A
ATOM	1764	C	PRO	A	247	37.632	20.416	33.765	1.00	9.99	A
ATOM	1765	O	PRO	A	247	36.865	21.197	33.222	1.00	11.54	A
ATOM	1766	N	ALA	A	248	38.253	19.449	33.083	1.00	9.23	A
ATOM	1767	CA	ALA	A	248	37.992	19.278	31.638	1.00	12.63	A
ATOM	1768	CB	ALA	A	248	38.832	18.097	31.069	1.00	10.35	A
ATOM	1769	C	ALA	A	248	36.487	19.021	31.431	1.00	15.07	A
ATOM	1770	O	ALA	A	248	35.838	18.390	32.278	1.00	11.60	A
ATOM	1771	N	ALA	A	249	35.935	19.497	30.311	1.00	12.95	A
ATOM	1772	CA	ALA	A	249	34.498	19.332	30.037	1.00	11.90	A
ATOM	1773	CB	ALA	A	249	34.141	19.886	28.633	1.00	12.61	A
ATOM	1774	C	ALA	A	249	34.037	17.890	30.149	1.00	15.30	A
ATOM	1775	O	ALA	A	249	32.953	17.617	30.666	1.00	14.63	A
ATOM	1776	N	ALA	A	250	34.845	16.949	29.672	1.00	14.76	A
ATOM	1777	CA	ALA	A	250	34.426	15.542	29.769	1.00	18.41	A
ATOM	1778	CB	ALA	A	250	35.486	14.623	29.168	1.00	15.53	A
ATOM	1779	C	ALA	A	250	34.118	15.102	31.200	1.00	15.76	A
ATOM	1780	O	ALA	A	250	33.366	14.154	31.410	1.00	14.59	A
ATOM	1781	N	ASN	A	251	34.677	15.785	32.190	1.00	14.82	A
ATOM	1782	CA	ASN	A	251	34.433	15.380	33.575	1.00	13.85	A
ATOM	1783	CB	ASN	A	251	35.665	15.696	34.441	1.00	12.26	A
ATOM	1784	CG	ASN	A	251	36.880	14.885	34.022	1.00	14.85	A
ATOM	1785	OD1	ASN	A	251	36.755	13.712	33.653	1.00	14.23	A
ATOM	1786	ND2	ASN	A	251	38.056	15.487	34.091	1.00	13.09	A
ATOM	1787	C	ASN	A	251	33.168	15.968	34.210	1.00	16.10	A
ATOM	1788	O	ASN	A	251	32.877	15.686	35.357	1.00	14.41	A
ATOM	1789	N	SER	A	252	32.431	16.806	33.482	1.00	13.25	A
ATOM	1790	CA	SER	A	252	31.191	17.346	34.039	1.00	10.81	A
ATOM	1791	CB	SER	A	252	31.262	18.868	34.209	1.00	22.32	A
ATOM	1792	OG	SER	A	252	31.266	19.536	32.953	1.00	23.58	A
ATOM	1793	C	SER	A	252	30.027	16.982	33.101	1.00	11.68	A
ATOM	1794	O	SER	A	252	28.862	17.077	33.479	1.00	12.18	A
ATOM	1795	N	SER	A	253	30.365	16.501	31.904	1.00	11.74	A
ATOM	1796	CA	SER	A	253	29.367	16.138	30.918	1.00	10.64	A
ATOM	1797	CB	SER	A	253	30.048	15.572	29.665	1.00	18.81	A
ATOM	1798	OG	SER	A	253	29.052	15.263	28.704	1.00	27.87	A
ATOM	1799	C	SER	A	253	28.294	15.139	31.382	1.00	15.51	A
ATOM	1800	O	SER	A	253	27.112	15.319	31.102	1.00	11.29	A
ATOM	1801	N	ALA	A	254	28.692	14.080	32.081	1.00	12.85	A
ATOM	1802	CA	ALA	A	254	27.700	13.084	32.525	1.00	14.75	A
ATOM	1803	CB	ALA	A	254	28.423	11.868	33.216	1.00	13.94	A
ATOM	1804	C	ALA	A	254	26.656	13.667	33.472	1.00	14.13	A
ATOM	1805	O	ALA	A	254	25.457	13.394	33.342	1.00	14.40	A
ATOM	1806	N	ALA	A	255	27.111	14.457	34.441	1.00	11.77	A
ATOM	1807	CA	ALA	A	255	26.205	15.070	35.401	1.00	13.30	A
ATOM	1808	CB	ALA	A	255	27.009	15.838	36.460	1.00	12.60	A
ATOM	1809	C	ALA	A	255	25.223	16.017	34.698	1.00	15.34	A
ATOM	1810	O	ALA	A	255	24.068	16.162	35.113	1.00	14.03	A
ATOM	1811	N	ILE	A	256	25.684	16.680	33.644	1.00	13.10	A
ATOM	1812	CA	ILE	A	256	24.812	17.599	32.920	1.00	14.09	A
ATOM	1813	CB	ILE	A	256	25.614	18.445	31.900	1.00	11.60	A
ATOM	1814	CG2	ILE	A	256	24.655	19.233	30.987	1.00	13.12	A
ATOM	1815	CG1	ILE	A	256	26.577	19.378	32.657	1.00	8.87	A
ATOM	1816	CD1	ILE	A	256	25.878	20.335	33.703	1.00	6.00	A
ATOM	1817	C	ILE	A	256	23.716	16.813	32.195	1.00	12.88	A
ATOM	1818	O	ILE	A	256	22.569	17.268	32.118	1.00	12.14	A
ATOM	1819	N	SER	A	257	24.069	15.639	31.678	1.00	12.01	A

FIGURE 5 (suite)

ATOM	1820	CA	SER	A	257	23.105	14.793	30.960	1.00	17.17	A
ATOM	1821	CB	SER	A	257	23.773	13.529	30.418	1.00	20.37	A
ATOM	1822	OG	SER	A	257	24.331	13.802	29.157	1.00	27.40	A
ATOM	1823	C	SER	A	257	21.886	14.359	31.750	1.00	21.46	A
ATOM	1824	O	SER	A	257	20.885	13.975	31.161	1.00	25.54	A
ATOM	1825	N	VAL	A	258	21.949	14.417	33.070	1.00	18.37	A
ATOM	1826	CA	VAL	A	258	20.803	13.983	33.849	1.00	22.61	A
ATOM	1827	CB	VAL	A	258	21.230	13.049	34.996	1.00	23.45	A
ATOM	1828	CG1	VAL	A	258	22.055	11.887	34.443	1.00	28.56	A
ATOM	1829	CG2	VAL	A	258	22.004	13.831	36.041	1.00	29.85	A
ATOM	1830	C	VAL	A	258	20.002	15.133	34.436	1.00	20.13	A
ATOM	1831	O	VAL	A	258	19.056	14.907	35.193	1.00	19.13	A
ATOM	1832	N	VAL	A	259	20.367	16.365	34.092	1.00	17.82	A
ATOM	1833	CA	VAL	A	259	19.628	17.503	34.621	1.00	12.10	A
ATOM	1834	CB	VAL	A	259	20.345	18.816	34.305	1.00	9.61	A
ATOM	1835	CG1	VAL	A	259	19.448	20.009	34.655	1.00	9.95	A
ATOM	1836	CG2	VAL	A	259	21.661	18.870	35.110	1.00	9.60	A
ATOM	1837	C	VAL	A	259	18.257	17.470	33.946	1.00	10.93	A
ATOM	1838	O	VAL	A	259	18.154	17.543	32.719	1.00	12.34	A
ATOM	1839	N	PRO	A	260	17.185	17.372	34.746	1.00	12.49	A
ATOM	1840	CD	PRO	A	260	17.178	17.349	36.227	1.00	15.54	A
ATOM	1841	CA	PRO	A	260	15.823	17.321	34.204	1.00	12.14	A
ATOM	1842	CB	PRO	A	260	14.992	16.881	35.415	1.00	18.68	A
ATOM	1843	CG	PRO	A	260	15.705	17.553	36.556	1.00	20.90	A
ATOM	1844	C	PRO	A	260	15.326	18.629	33.592	1.00	13.33	A
ATOM	1845	O	PRO	A	260	15.719	19.704	34.025	1.00	11.59	A
ATOM	1846	N	LEU	A	261	14.462	18.517	32.583	1.00	10.89	A
ATOM	1847	CA	LEU	A	261	13.906	19.697	31.899	1.00	14.89	A
ATOM	1848	CB	LEU	A	261	13.190	19.272	30.612	1.00	14.36	A
ATOM	1849	CG	LEU	A	261	14.033	18.724	29.470	1.00	23.33	A
ATOM	1850	CD1	LEU	A	261	13.132	18.115	28.388	1.00	17.91	A
ATOM	1851	CD2	LEU	A	261	14.860	19.854	28.927	1.00	21.86	A
ATOM	1852	C	LEU	A	261	12.868	20.354	32.782	1.00	14.14	A
ATOM	1853	O	LEU	A	261	12.313	19.715	33.667	1.00	13.00	A
ATOM	1854	N	PRO	A	262	12.598	21.646	32.570	1.00	16.56	A
ATOM	1855	CD	PRO	A	262	13.154	22.620	31.613	1.00	18.10	A
ATOM	1856	CA	PRO	A	262	11.576	22.260	33.421	1.00	16.86	A
ATOM	1857	CB	PRO	A	262	11.753	23.752	33.137	1.00	16.37	A
ATOM	1858	CG	PRO	A	262	12.147	23.764	31.698	1.00	22.55	A
ATOM	1859	C	PRO	A	262	10.239	21.709	32.911	1.00	14.68	A
ATOM	1860	O	PRO	A	262	10.136	21.357	31.743	1.00	14.32	A
ATOM	1861	N	ALA	A	263	9.234	21.605	33.776	1.00	13.42	A
ATOM	1862	CA	ALA	A	263	7.943	21.085	33.344	1.00	16.60	A
ATOM	1863	CB	ALA	A	263	6.994	20.952	34.539	1.00	20.02	A
ATOM	1864	C	ALA	A	263	7.343	22.011	32.292	1.00	16.04	A
ATOM	1865	O	ALA	A	263	7.480	23.235	32.377	1.00	14.70	A
ATOM	1866	N	ALA	A	264	6.664	21.426	31.309	1.00	15.42	A
ATOM	1867	CA	ALA	A	264	6.050	22.206	30.239	1.00	12.74	A
ATOM	1868	CB	ALA	A	264	5.248	21.287	29.308	1.00	19.88	A
ATOM	1869	C	ALA	A	264	5.149	23.329	30.747	1.00	15.82	A
ATOM	1870	O	ALA	A	264	5.247	24.461	30.264	1.00	17.34	A
ATOM	1871	N	ALA	A	265	4.284	23.037	31.721	1.00	13.78	A
ATOM	1872	CA	ALA	A	265	3.370	24.071	32.242	1.00	15.17	A
ATOM	1873	CB	ALA	A	265	2.464	23.478	33.363	1.00	15.42	A
ATOM	1874	C	ALA	A	265	4.057	25.333	32.772	1.00	15.06	A
ATOM	1875	O	ALA	A	265	3.437	26.398	32.838	1.00	13.78	A
ATOM	1876	N	ASN	A	266	5.320	25.212	33.175	1.00	13.85	A
ATOM	1877	CA	ASN	A	266	6.057	26.343	33.733	1.00	12.11	A
ATOM	1878	CB	ASN	A	266	6.987	25.895	34.873	1.00	13.94	A
ATOM	1879	CG	ASN	A	266	6.253	25.239	36.028	1.00	23.25	A
ATOM	1880	OD1	ASN	A	266	5.175	25.676	36.425	1.00	21.92	A
ATOM	1881	ND2	ASN	A	266	6.856	24.200	36.592	1.00	19.37	A
ATOM	1882	C	ASN	A	266	6.969	27.039	32.730	1.00	12.06	A
ATOM	1883	O	ASN	A	266	7.662	27.965	33.100	1.00	13.88	A
ATOM	1884	N	ARG	A	267	6.980	26.600	31.483	1.00	10.11	A
ATOM	1885	CA	ARG	A	267	7.933	27.162	30.534	1.00	12.44	A
ATOM	1886	CB	ARG	A	267	8.029	26.254	29.306	1.00	10.57	A
ATOM	1887	CG	ARG	A	267	8.746	24.945	29.675	1.00	12.04	A
ATOM	1888	CD	ARG	A	267	8.892	23.924	28.540	1.00	9.95	A
ATOM	1889	NE	ARG	A	267	9.275	22.637	29.124	1.00	14.76	A
ATOM	1890	CZ	ARG	A	267	9.533	21.530	28.439	1.00	14.94	A
ATOM	1891	NH1	ARG	A	267	9.477	21.543	27.118	1.00	16.59	A
ATOM	1892	NH2	ARG	A	267	9.782	20.387	29.084	1.00	12.17	A
ATOM	1893	C	ARG	A	267	7.785	28.629	30.168	1.00	13.15	A
ATOM	1894	O	ARG	A	267	8.658	29.207	29.505	1.00	13.32	A
ATOM	1895	N	GLY	A	268	6.711	29.240	30.663	1.00	11.13	A

FIGURE 5 (suite)

ATOM	1896	CA	GLY	A	268	6.491	30.653	30.439	1.00	13.33	A
ATOM	1897	C	GLY	A	268	7.212	31.457	31.507	1.00	13.92	A
ATOM	1898	O	GLY	A	268	7.219	32.679	31.452	1.00	14.39	A
ATOM	1899	N	ASP	A	269	7.804	30.767	32.486	1.00	11.00	A
ATOM	1900	CA	ASP	A	269	8.554	31.398	33.594	1.00	14.58	A
ATOM	1901	CB	ASP	A	269	8.233	30.665	34.914	1.00	13.17	A
ATOM	1902	CG	ASP	A	269	8.943	31.263	36.117	1.00	16.24	A
ATOM	1903	OD1	ASP	A	269	9.767	32.179	35.944	1.00	17.40	A
ATOM	1904	OD2	ASP	A	269	8.667	30.804	37.244	1.00	19.44	A
ATOM	1905	C	ASP	A	269	10.064	31.290	33.303	1.00	10.72	A
ATOM	1906	O	ASP	A	269	10.616	30.196	33.348	1.00	11.39	A
ATOM	1907	N	PRO	A	270	10.742	32.417	33.010	1.00	11.52	A
ATOM	1908	CD	PRO	A	270	10.217	33.796	32.924	1.00	11.48	A
ATOM	1909	CA	PRO	A	270	12.184	32.394	32.709	1.00	10.44	A
ATOM	1910	CB	PRO	A	270	12.523	33.867	32.491	1.00	11.04	A
ATOM	1911	CG	PRO	A	270	11.225	34.465	32.026	1.00	13.30	A
ATOM	1912	C	PRO	A	270	13.042	31.786	33.793	1.00	12.77	A
ATOM	1913	O	PRO	A	270	14.097	31.243	33.521	1.00	10.58	A
ATOM	1914	N	ASN	A	271	12.578	31.870	35.032	1.00	11.41	A
ATOM	1915	CA	ASN	A	271	13.337	31.332	36.145	1.00	11.19	A
ATOM	1916	CB	ASN	A	271	12.660	31.729	37.463	1.00	14.43	A
ATOM	1917	CG	ASN	A	271	13.533	31.434	38.683	1.00	22.14	A
ATOM	1918	OD1	ASN	A	271	14.734	31.726	38.696	1.00	16.89	A
ATOM	1919	ND2	ASN	A	271	12.934	30.854	39.703	1.00	16.43	A
ATOM	1920	C	ASN	A	271	13.545	29.816	36.090	1.00	16.21	A
ATOM	1921	O	ASN	A	271	14.595	29.319	36.510	1.00	15.74	A
ATOM	1922	N	VAL	A	272	12.574	29.065	35.575	1.00	10.21	A
ATOM	1923	CA	VAL	A	272	12.749	27.613	35.547	1.00	11.32	A
ATOM	1924	CB	VAL	A	272	11.378	26.849	35.440	1.00	13.38	A
ATOM	1925	CG1	VAL	A	272	10.450	27.297	36.548	1.00	14.31	A
ATOM	1926	CG2	VAL	A	272	10.759	27.074	34.078	1.00	11.03	A
ATOM	1927	C	VAL	A	272	13.651	27.086	34.434	1.00	12.71	A
ATOM	1928	O	VAL	A	272	14.028	25.907	34.459	1.00	10.89	A
ATOM	1929	N	TRP	A	273	13.991	27.930	33.461	1.00	7.57	A
ATOM	1930	CA	TRP	A	273	14.862	27.465	32.366	1.00	7.83	A
ATOM	1931	CB	TRP	A	273	14.741	28.403	31.150	1.00	7.08	A
ATOM	1932	CG	TRP	A	273	13.496	28.126	30.364	1.00	10.87	A
ATOM	1933	CD2	TRP	A	273	13.359	27.161	29.325	1.00	9.80	A
ATOM	1934	CE2	TRP	A	273	12.020	27.228	28.860	1.00	9.21	A
ATOM	1935	CE3	TRP	A	273	14.241	26.240	28.732	1.00	10.74	A
ATOM	1936	CD1	TRP	A	273	12.271	28.728	30.500	1.00	7.74	A
ATOM	1937	NE1	TRP	A	273	11.375	28.192	29.590	1.00	12.31	A
ATOM	1938	CZ2	TRP	A	273	11.545	26.412	27.838	1.00	10.97	A
ATOM	1939	CZ3	TRP	A	273	13.764	25.428	27.700	1.00	10.91	A
ATOM	1940	CH2	TRP	A	273	12.427	25.522	27.267	1.00	14.13	A
ATOM	1941	C	TRP	A	273	16.338	27.311	32.755	1.00	9.26	A
ATOM	1942	O	TRP	A	273	17.119	26.663	32.042	1.00	9.73	A
ATOM	1943	N	THR	A	274	16.736	27.893	33.880	1.00	8.74	A
ATOM	1944	CA	THR	A	274	18.123	27.769	34.281	1.00	11.71	A
ATOM	1945	CB	THR	A	274	18.759	29.147	34.542	1.00	12.87	A
ATOM	1946	OG1	THR	A	274	18.701	29.940	33.334	1.00	16.61	A
ATOM	1947	CG2	THR	A	274	20.240	28.973	34.959	1.00	9.96	A
ATOM	1948	C	THR	A	274	18.271	26.918	35.535	1.00	10.53	A
ATOM	1949	O	THR	A	274	18.020	27.378	36.645	1.00	11.96	A
ATOM	1950	N	PRO	A	275	18.673	25.657	35.373	1.00	11.80	A
ATOM	1951	CD	PRO	A	275	18.885	24.916	34.119	1.00	13.30	A
ATOM	1952	CA	PRO	A	275	18.841	24.782	36.543	1.00	11.14	A
ATOM	1953	CB	PRO	A	275	19.180	23.424	35.921	1.00	15.21	A
ATOM	1954	CG	PRO	A	275	18.600	23.506	34.528	1.00	15.39	A
ATOM	1955	C	PRO	A	275	20.004	25.253	37.445	1.00	12.51	A
ATOM	1956	O	PRO	A	275	21.007	25.723	36.950	1.00	12.15	A
ATOM	1957	N	VAL	A	276	19.869	25.148	38.764	1.00	9.91	A
ATOM	1958	CA	VAL	A	276	20.999	25.502	39.615	1.00	10.08	A
ATOM	1959	CB	VAL	A	276	20.738	26.762	40.478	1.00	15.02	A
ATOM	1960	CG1	VAL	A	276	20.534	27.990	39.568	1.00	16.57	A
ATOM	1961	CG2	VAL	A	276	19.551	26.543	41.388	1.00	17.45	A
ATOM	1962	C	VAL	A	276	21.236	24.293	40.500	1.00	12.75	A
ATOM	1963	O	VAL	A	276	20.315	23.498	40.743	1.00	7.21	A
ATOM	1964	N	PHE	A	277	22.472	24.149	40.969	1.00	13.38	A
ATOM	1965	CA	PHE	A	277	22.848	23.017	41.798	1.00	12.43	A
ATOM	1966	CB	PHE	A	277	24.231	22.491	41.373	1.00	8.49	A
ATOM	1967	CG	PHE	A	277	24.229	21.828	40.017	1.00	8.19	A
ATOM	1968	CD1	PHE	A	277	24.404	22.568	38.858	1.00	9.76	A
ATOM	1969	CD2	PHE	A	277	23.999	20.461	39.909	1.00	8.15	A
ATOM	1970	CE1	PHE	A	277	24.350	21.934	37.585	1.00	13.41	A
ATOM	1971	CE2	PHE	A	277	23.938	19.825	38.654	1.00	13.62	A

FIGURE 5 (suite)

ATOM	1972	CZ	PHE	A	277	24.114	20.555	37.499	1.00	8.74	A
ATOM	1973	C	PHE	A	277	22.848	23.377	43.272	1.00	12.19	A
ATOM	1974	O	PHE	A	277	22.892	24.553	43.534	1.00	12.80	A
ATOM	1975	N	GLY	A	278	22.781	22.356	44.116	1.00	12.01	A
ATOM	1976	CA	GLY	A	278	22.767	22.601	45.547	1.00	10.29	A
ATOM	1977	C	GLY	A	278	23.113	21.342	46.309	1.00	9.39	A
ATOM	1978	O	GLY	A	278	23.379	20.302	45.704	1.00	12.45	A
ATOM	1979	N	ALA	A	279	23.087	21.414	47.637	1.00	11.15	A
ATOM	1980	CA	ALA	A	279	23.436	20.246	46.450	1.00	14.32	A
ATOM	1981	CB	ALA	A	279	23.362	20.604	49.930	1.00	16.91	A
ATOM	1982	C	ALA	A	279	22.542	19.029	48.157	1.00	20.18	A
ATOM	1983	O	ALA	A	279	23.038	17.896	48.017	1.00	18.69	A
ATOM	1984	N	VAL	A	280	21.238	19.262	48.040	1.00	14.35	A
ATOM	1985	CA	VAL	A	280	20.302	18.176	47.796	1.00	19.81	A
ATOM	1986	CB	VAL	A	280	19.500	17.847	49.076	1.00	23.28	A
ATOM	1987	CG1	VAL	A	280	20.457	17.579	50.225	1.00	23.97	A
ATOM	1988	CG2	VAL	A	280	18.603	18.992	49.436	1.00	21.87	A
ATOM	1989	C	VAL	A	280	19.311	18.483	46.686	1.00	20.63	A
ATOM	1990	O	VAL	A	280	19.004	19.635	46.407	1.00	21.63	A
ATOM	1991	N	THR	A	281	18.812	17.436	46.055	1.00	20.03	A
ATOM	1992	CA	THR	A	281	17.838	17.599	44.982	1.00	19.32	A
ATOM	1993	CB	THR	A	281	17.732	16.327	44.136	1.00	20.70	A
ATOM	1994	OG1	THR	A	281	18.989	16.096	43.493	1.00	24.83	A
ATOM	1995	CG2	THR	A	281	16.637	16.473	43.062	1.00	20.23	A
ATOM	1996	C	THR	A	281	16.500	17.882	45.618	1.00	24.45	A
ATOM	1997	O	THR	A	281	16.073	17.159	46.520	1.00	22.56	A
ATOM	1998	N	GLY	A	282	15.854	18.949	45.164	1.00	22.37	A
ATOM	1999	CA	GLY	A	282	14.564	19.316	45.706	1.00	26.62	A
ATOM	2000	C	GLY	A	282	14.183	20.735	45.343	1.00	31.11	A
ATOM	2001	O	GLY	A	282	15.048	21.603	45.206	1.00	27.54	A
ATOM	2002	N	GLY	A	283	12.883	20.971	45.181	1.00	32.42	A
ATOM	2003	CA	GLY	A	283	12.401	22.301	44.855	1.00	30.56	A
ATOM	2004	C	GLY	A	283	13.051	22.950	43.654	1.00	30.47	A
ATOM	2005	O	GLY	A	283	13.307	24.154	43.666	1.00	33.57	A
ATOM	2006	N	GLY	A	284	13.298	22.171	42.607	1.00	26.82	A
ATOM	2007	CA	GLY	A	284	13.925	22.723	41.415	1.00	26.01	A
ATOM	2008	C	GLY	A	284	15.450	22.687	41.439	1.00	26.04	A
ATOM	2009	O	GLY	A	284	16.115	22.822	40.406	1.00	25.82	A
ATOM	2010	N	VAL	A	285	16.022	22.521	42.622	1.00	19.46	A
ATOM	2011	CA	VAL	A	285	17.467	22.461	42.722	1.00	19.85	A
ATOM	2012	CB	VAL	A	285	17.903	22.894	44.135	1.00	19.90	A
ATOM	2013	CG1	VAL	A	285	19.389	22.673	44.319	1.00	16.38	A
ATOM	2014	CG2	VAL	A	285	17.521	24.376	44.360	1.00	20.29	A
ATOM	2015	C	VAL	A	285	17.958	21.037	42.428	1.00	18.72	A
ATOM	2016	O	VAL	A	285	17.298	20.055	42.754	1.00	18.51	A
ATOM	2017	N	VAL	A	286	19.103	20.932	41.755	1.00	14.01	A
ATOM	2018	CA	VAL	A	286	19.706	19.645	41.423	1.00	16.59	A
ATOM	2019	CB	VAL	A	286	20.200	19.625	39.964	1.00	14.25	A
ATOM	2020	CG1	VAL	A	286	20.729	18.254	39.623	1.00	19.16	A
ATOM	2021	CG2	VAL	A	286	19.058	19.997	39.036	1.00	20.67	A
ATOM	2022	C	VAL	A	286	20.917	19.416	42.325	1.00	17.27	A
ATOM	2023	O	VAL	A	286	21.757	20.302	42.484	1.00	13.49	A
ATOM	2024	N	ALA	A	287	21.041	18.229	42.896	1.00	15.01	A
ATOM	2025	CA	ALA	A	287	22.188	18.000	43.778	1.00	17.78	A
ATOM	2026	CB	ALA	A	287	22.039	16.649	44.527	1.00	16.62	A
ATOM	2027	C	ALA	A	287	23.483	18.011	42.999	1.00	12.88	A
ATOM	2028	O	ALA	A	287	23.520	17.533	41.854	1.00	10.29	A
ATOM	2029	N	TYR	A	288	24.538	18.576	43.603	1.00	11.08	A
ATOM	2030	CA	TYR	A	288	25.867	18.554	42.979	1.00	8.88	A
ATOM	2031	CB	TYR	A	288	26.877	19.297	43.862	1.00	12.41	A
ATOM	2032	CG	TYR	A	288	26.891	20.803	43.649	1.00	9.59	A
ATOM	2033	CD1	TYR	A	288	26.329	21.677	44.589	1.00	8.82	A
ATOM	2034	CE1	TYR	A	288	26.320	23.086	44.382	1.00	10.11	A
ATOM	2035	CD2	TYR	A	288	27.463	21.356	42.491	1.00	10.87	A
ATOM	2036	CE2	TYR	A	288	27.464	22.744	42.275	1.00	6.63	A
ATOM	2037	CZ	TYR	A	288	26.883	23.601	43.223	1.00	7.60	A
ATOM	2038	OH	TYR	A	288	26.842	24.960	42.960	1.00	7.46	A
ATOM	2039	C	TYR	A	288	26.263	17.061	42.851	1.00	12.67	A
ATOM	2040	O	TYR	A	288	25.989	16.265	43.750	1.00	10.55	A
ATOM	2041	N	PRO	A	289	26.925	16.672	41.746	1.00	12.61	A
ATOM	2042	CD	PRO	A	289	27.338	17.560	40.625	1.00	13.50	A
ATOM	2043	CA	PRO	A	289	27.346	15.280	41.495	1.00	12.99	A
ATOM	2044	CB	PRO	A	289	27.863	15.328	40.051	1.00	15.51	A
ATOM	2045	CG	PRO	A	289	28.424	16.734	39.920	1.00	10.53	A
ATOM	2046	C	PRO	A	289	28.366	14.644	42.439	1.00	17.46	A
ATOM	2047	O	PRO	A	289	29.342	15.282	42.835	1.00	15.29	A

FIGURE 5 (suite)

ATOM	2048	N	ASP	A	290	28.149	13.372	42.782	1.00	16.57	A
ATOM	2049	CA	ASP	A	290	29.092	12.691	43.652	1.00	20.97	A
ATOM	2050	CB	ASP	A	290	28.360	11.751	44.628	1.00	25.52	A
ATOM	2051	CG	ASP	A	290	27.489	10.723	43.929	1.00	34.64	A
ATOM	2052	OD1	ASP	A	290	26.599	10.146	44.604	1.00	38.07	A
ATOM	2053	OD2	ASP	A	290	27.693	10.478	42.716	1.00	39.24	A
ATOM	2054	C	ASP	A	290	30.154	11.952	42.824	1.00	21.23	A
ATOM	2055	O	ASP	A	290	30.990	11.231	43.362	1.00	21.11	A
ATOM	2056	N	SER	A	291	30.136	12.152	41.509	1.00	14.24	A
ATOM	2057	CA	SER	A	291	31.143	11.538	40.645	1.00	16.28	A
ATOM	2058	CB	SER	A	291	30.592	10.290	39.925	1.00	16.14	A
ATOM	2059	OG	SER	A	291	29.549	10.625	39.031	1.00	22.17	A
ATOM	2060	C	SER	A	291	31.555	12.609	39.643	1.00	14.75	A
ATOM	2061	O	SER	A	291	30.842	13.605	39.493	1.00	13.50	A
ATOM	2062	N	GLY	A	292	32.692	12.419	38.971	1.00	13.79	A
ATOM	2063	CA	GLY	A	292	33.181	13.423	38.019	1.00	14.60	A
ATOM	2064	C	GLY	A	292	33.713	14.688	38.707	1.00	11.05	A
ATOM	2065	O	GLY	A	292	33.964	14.669	39.909	1.00	14.10	A
ATOM	2066	N	TYR	A	293	33.904	15.779	37.955	1.00	10.56	A
ATOM	2067	CA	TYR	A	293	34.380	17.049	38.529	1.00	9.23	A
ATOM	2068	CB	TYR	A	293	34.838	18.014	37.443	1.00	10.30	A
ATOM	2069	CG	TYR	A	293	35.535	19.229	38.012	1.00	11.13	A
ATOM	2070	CD1	TYR	A	293	36.829	19.138	38.526	1.00	7.85	A
ATOM	2071	CE1	TYR	A	293	37.482	20.269	39.049	1.00	8.64	A
ATOM	2072	CD2	TYR	A	293	34.900	20.470	38.038	1.00	11.82	A
ATOM	2073	CE2	TYR	A	293	35.547	21.601	38.554	1.00	11.43	A
ATOM	2074	CZ	TYR	A	293	36.839	21.488	39.052	1.00	8.40	A
ATOM	2075	OH	TYR	A	293	37.488	22.625	39.496	1.00	8.49	A
ATOM	2076	C	TYR	A	293	33.183	17.645	39.252	1.00	9.71	A
ATOM	2077	O	TYR	A	293	32.142	17.834	38.657	1.00	12.02	A
ATOM	2078	N	PRO	A	294	33.347	18.021	40.531	1.00	12.25	A
ATOM	2079	CD	PRO	A	294	34.575	17.923	41.350	1.00	12.44	A
ATOM	2080	CA	PRO	A	294	32.229	18.559	41.302	1.00	14.24	A
ATOM	2081	CB	PRO	A	294	32.644	18.263	42.748	1.00	12.15	A
ATOM	2082	CG	PRO	A	294	34.132	18.499	42.712	1.00	15.49	A
ATOM	2083	C	PRO	A	294	31.682	19.963	41.133	1.00	13.85	A
ATOM	2084	O	PRO	A	294	30.511	20.171	41.429	1.00	11.37	A
ATOM	2085	N	ILE	A	295	32.476	20.907	40.628	1.00	10.88	A
ATOM	2086	CA	ILE	A	295	31.990	22.280	40.510	1.00	9.12	A
ATOM	2087	CB	ILE	A	295	33.062	23.301	40.934	1.00	10.07	A
ATOM	2088	CG2	ILE	A	295	32.375	24.666	41.232	1.00	10.52	A
ATOM	2089	CG1	ILE	A	295	33.733	22.853	42.236	1.00	12.06	A
ATOM	2090	CD1	ILE	A	295	34.841	23.801	42.703	1.00	12.46	A
ATOM	2091	C	ILE	A	295	31.564	22.574	39.087	1.00	12.87	A
ATOM	2092	O	ILE	A	295	32.397	22.660	38.182	1.00	10.57	A
ATOM	2093	N	LEU	A	296	30.257	22.743	38.902	1.00	10.82	A
ATOM	2094	CA	LEU	A	296	29.703	22.951	37.570	1.00	8.61	A
ATOM	2095	CB	LEU	A	296	29.370	21.578	36.949	1.00	9.63	A
ATOM	2096	CG	LEU	A	296	28.032	20.884	37.276	1.00	7.75	A
ATOM	2097	CD1	LEU	A	296	27.971	19.517	36.572	1.00	11.60	A
ATOM	2098	CD2	LEU	A	296	27.852	20.690	38.784	1.00	10.20	A
ATOM	2099	C	LEU	A	296	28.461	23.828	37.612	1.00	7.00	A
ATOM	2100	O	LEU	A	296	27.945	24.137	38.690	1.00	11.47	A
ATOM	2101	N	GLY	A	297	27.988	24.236	36.436	1.00	8.98	A
ATOM	2102	CA	GLY	A	297	26.812	25.093	36.353	1.00	8.75	A
ATOM	2103	C	GLY	A	297	26.503	25.452	34.906	1.00	14.03	A
ATOM	2104	O	GLY	A	297	27.128	24.917	33.979	1.00	9.23	A
ATOM	2105	N	PHE	A	298	25.544	26.353	34.700	1.00	7.40	A
ATOM	2106	CA	PHE	A	298	25.177	26.758	33.350	1.00	7.84	A
ATOM	2107	CB	PHE	A	298	23.666	26.550	33.105	1.00	6.30	A
ATOM	2108	CG	PHE	A	298	23.249	25.102	32.964	1.00	10.10	A
ATOM	2109	CD1	PHE	A	298	22.775	24.398	34.094	1.00	9.62	A
ATOM	2110	CD2	PHE	A	298	23.356	24.444	31.763	1.00	8.37	A
ATOM	2111	CE1	PHE	A	298	22.414	23.038	33.986	1.00	13.84	A
ATOM	2112	CE2	PHE	A	298	23.005	23.087	31.630	1.00	7.19	A
ATOM	2113	CZ	PHE	A	298	22.533	22.379	32.747	1.00	12.00	A
ATOM	2114	C	PHE	A	298	25.459	28.235	33.145	1.00	10.22	A
ATOM	2115	O	PHE	A	298	25.431	29.007	34.114	1.00	9.27	A
ATOM	2116	N	THR	A	299	25.811	28.615	31.910	1.00	7.04	A
ATOM	2117	CA	THR	A	299	25.961	30.029	31.594	1.00	8.99	A
ATOM	2118	CB	THR	A	299	27.319	30.414	30.975	1.00	12.65	A
ATOM	2119	OG1	THR	A	299	27.293	31.818	30.682	1.00	10.67	A
ATOM	2120	CG2	THR	A	299	27.616	29.617	29.740	1.00	12.18	A
ATOM	2121	C	THR	A	299	24.798	30.220	30.616	1.00	8.12	A
ATOM	2122	O	THR	A	299	24.482	29.325	29.810	1.00	9.48	A
ATOM	2123	N	ASP	A	300	24.173	31.392	30.677	1.00	8.49	A

FIGURE 5 (suite)

ATOM	2124	CA	ASP	A	300	22.930	31.636	29.950	1.00	10.66	A
ATOM	2125	CB	ASP	A	300	21.849	31.816	31.023	1.00	8.23	A
ATOM	2126	CG	ASP	A	300	22.055	30.877	32.193	1.00	14.11	A
ATOM	2127	OD1	ASP	A	300	22.141	29.660	31.928	1.00	8.23	A
ATOM	2128	OD2	ASP	A	300	22.149	31.341	33.373	1.00	15.65	A
ATOM	2129	C	ASP	A	300	22.828	32.790	28.975	1.00	10.65	A
ATOM	2130	O	ASP	A	300	23.690	33.669	28.931	1.00	8.49	A
ATOM	2131	N	LEU	A	301	21.740	32.765	28.202	1.00	8.77	A
ATOM	2132	CA	LEU	A	301	21.407	33.819	27.246	1.00	10.49	A
ATOM	2133	CB	LEU	A	301	21.121	33.226	25.850	1.00	10.57	A
ATOM	2134	CG	LEU	A	301	22.189	32.371	25.157	1.00	17.61	A
ATOM	2135	CD1	LEU	A	301	21.699	31.951	23.775	1.00	16.46	A
ATOM	2136	CD2	LEU	A	301	23.456	33.151	25.057	1.00	12.96	A
ATOM	2137	C	LEU	A	301	20.128	34.533	27.689	1.00	7.85	A
ATOM	2138	O	LEU	A	301	19.179	33.889	28.127	1.00	7.63	A
ATOM	2139	N	ILE	A	302	20.101	35.855	27.564	1.00	8.91	A
ATOM	2140	CA	ILE	A	302	18.897	36.614	27.879	1.00	7.82	A
ATOM	2141	CB	ILE	A	302	19.146	37.648	29.000	1.00	10.36	A
ATOM	2142	CG2	ILE	A	302	17.848	38.429	29.261	1.00	12.51	A
ATOM	2143	CG1	ILE	A	302	19.588	36.918	30.287	1.00	8.81	A
ATOM	2144	CD1	ILE	A	302	20.089	37.867	31.411	1.00	7.82	A
ATOM	2145	C	ILE	A	302	18.517	37.368	26.602	1.00	9.48	A
ATOM	2146	O	ILE	A	302	19.320	38.158	26.096	1.00	8.44	A
ATOM	2147	N	PHE	A	303	17.311	37.120	26.081	1.00	8.80	A
ATOM	2148	CA	PHE	A	303	16.843	37.786	24.854	1.00	8.37	A
ATOM	2149	CB	PHE	A	303	16.751	36.821	23.651	1.00	7.07	A
ATOM	2150	CG	PHE	A	303	18.054	36.583	22.944	1.00	8.30	A
ATOM	2151	CD1	PHE	A	303	19.027	35.770	23.500	1.00	8.48	A
ATOM	2152	CD2	PHE	A	303	18.316	37.205	21.725	1.00	7.08	A
ATOM	2153	CE1	PHE	A	303	20.265	35.582	22.851	1.00	7.30	A
ATOM	2154	CE2	PHE	A	303	19.559	37.023	21.065	1.00	9.28	A
ATOM	2155	CZ	PHE	A	303	20.528	36.210	21.637	1.00	11.64	A
ATOM	2156	C	PHE	A	303	15.437	38.305	25.032	1.00	9.03	A
ATOM	2157	O	PHE	A	303	14.797	38.052	26.031	1.00	9.30	A
ATOM	2158	N	SER	A	304	14.947	39.002	24.014	1.00	7.56	A
ATOM	2159	CA	SER	A	304	13.566	39.465	24.044	1.00	9.72	A
ATOM	2160	CB	SER	A	304	13.470	40.870	23.444	1.00	11.08	A
ATOM	2161	OG	SER	A	304	12.117	41.291	23.498	1.00	10.08	A
ATOM	2162	C	SER	A	304	12.707	38.530	23.170	1.00	6.80	A
ATOM	2163	O	SER	A	304	13.198	38.018	22.162	1.00	10.90	A
ATOM	2164	N	GLU	A	305	11.451	38.293	23.534	1.00	8.14	A
ATOM	2165	CA	GLU	A	305	10.605	37.482	22.655	1.00	11.11	A
ATOM	2166	CB	GLU	A	305	9.268	37.125	23.316	1.00	10.66	A
ATOM	2167	CG	GLU	A	305	8.447	36.161	22.439	1.00	11.71	A
ATOM	2168	CD	GLU	A	305	7.073	35.820	22.985	1.00	12.77	A
ATOM	2169	OE1	GLU	A	305	6.767	36.154	24.147	1.00	14.12	A
ATOM	2170	OE2	GLU	A	305	6.288	35.192	22.228	1.00	16.70	A
ATOM	2171	C	GLU	A	305	10.305	38.329	21.399	1.00	15.34	A
ATOM	2172	O	GLU	A	305	10.154	37.800	20.283	1.00	10.74	A
ATOM	2173	N	CYS	A	306	10.239	39.649	21.574	1.00	11.86	A
ATOM	2174	CA	CYS	A	306	9.889	40.534	20.450	1.00	12.96	A
ATOM	2175	C	CYS	A	306	10.859	41.666	20.140	1.00	14.14	A
ATOM	2176	O	CYS	A	306	11.434	42.270	21.046	1.00	11.98	A
ATOM	2177	CB	CYS	A	306	8.531	41.185	20.726	1.00	11.40	A
ATOM	2178	SG	CYS	A	306	7.188	40.111	21.313	1.00	15.63	A
ATOM	2179	N	TYR	A	307	11.017	41.956	18.854	1.00	12.82	A
ATOM	2180	CA	TYR	A	307	11.872	43.060	18.397	1.00	10.85	A
ATOM	2181	CB	TYR	A	307	13.143	42.533	17.712	1.00	8.88	A
ATOM	2182	CG	TYR	A	307	14.066	41.850	18.703	1.00	13.96	A
ATOM	2183	CD1	TYR	A	307	13.902	40.499	19.020	1.00	13.44	A
ATOM	2184	CE1	TYR	A	307	14.683	39.882	20.020	1.00	13.43	A
ATOM	2185	CD2	TYR	A	307	15.035	42.579	19.401	1.00	11.32	A
ATOM	2186	CE2	TYR	A	307	15.821	41.972	20.410	1.00	11.99	A
ATOM	2187	CZ	TYR	A	307	15.637	40.625	20.712	1.00	12.10	A
ATOM	2188	OH	TYR	A	307	16.379	40.019	21.724	1.00	12.32	A
ATOM	2189	C	TYR	A	307	11.056	43.908	17.424	1.00	13.04	A
ATOM	2190	O	TYR	A	307	10.318	43.370	16.588	1.00	11.71	A
ATOM	2191	N	ALA	A	308	11.161	45.229	17.546	1.00	13.47	A
ATOM	2192	CA	ALA	A	308	10.420	46.123	16.660	1.00	19.16	A
ATOM	2193	CB	ALA	A	308	10.623	47.583	17.116	1.00	19.39	A
ATOM	2194	C	ALA	A	308	10.827	45.960	15.176	1.00	16.58	A
ATOM	2195	O	ALA	A	308	9.990	46.011	14.290	1.00	15.94	A
ATOM	2196	N	ASN	A	309	12.109	45.752	14.919	1.00	16.56	A
ATOM	2197	CA	ASN	A	309	12.621	45.602	13.565	1.00	15.71	A
ATOM	2198	CB	ASN	A	309	14.084	46.052	13.558	1.00	11.74	A
ATOM	2199	CG	ASN	A	309	14.704	46.002	12.183	1.00	20.62	A

FIGURE 5 (suite)

ATOM	2200	OD1	ASN	A	309	15.130	44.946	11.713	1.00	17.26	A
ATOM	2201	ND2	ASN	A	309	14.741	47.153	11.517	1.00	13.84	A
ATOM	2202	C	ASN	A	309	12.493	44.142	13.066	1.00	16.39	A
ATOM	2203	O	ASN	A	309	13.031	43.221	13.678	1.00	11.54	A
ATOM	2204	N	ALA	A	310	11.806	43.942	11.941	1.00	12.69	A
ATOM	2205	CA	ALA	A	310	11.583	42.584	11.430	1.00	16.06	A
ATOM	2206	CB	ALA	A	310	10.564	42.618	10.281	1.00	16.44	A
ATOM	2207	C	ALA	A	310	12.836	41.828	10.997	1.00	14.76	A
ATOM	2208	O	ALA	A	310	12.907	40.599	11.128	1.00	15.90	A
ATOM	2209	N	THR	A	311	13.827	42.546	10.485	1.00	13.61	A
ATOM	2210	CA	THR	A	311	15.074	41.922	10.069	1.00	14.28	A
ATOM	2211	CB	THR	A	311	15.949	42.927	9.314	1.00	15.47	A
ATOM	2212	OG1	THR	A	311	15.284	43.307	8.097	1.00	18.10	A
ATOM	2213	CG2	THR	A	311	17.291	42.322	8.977	1.00	16.40	A
ATOM	2214	C	THR	A	311	15.813	41.407	11.324	1.00	15.00	A
ATOM	2215	O	THR	A	311	16.371	40.313	11.318	1.00	12.29	A
ATOM	2216	N	GLN	A	312	15.798	42.180	12.409	1.00	13.08	A
ATOM	2217	CA	GLN	A	312	16.477	41.717	13.623	1.00	12.35	A
ATOM	2218	CB	GLN	A	312	16.545	42.827	14.682	1.00	10.08	A
ATOM	2219	CG	GLN	A	312	17.501	43.960	14.273	1.00	7.89	A
ATOM	2220	CD	GLN	A	312	17.696	44.997	15.377	1.00	13.93	A
ATOM	2221	OE1	GLN	A	312	16.897	45.087	16.311	1.00	14.28	A
ATOM	2222	NE2	GLN	A	312	18.743	45.799	15.255	1.00	16.18	A
ATOM	2223	C	GLN	A	312	15.768	40.486	14.191	1.00	11.19	A
ATOM	2224	O	GLN	A	312	16.418	39.537	14.639	1.00	14.09	A
ATOM	2225	N	THR	A	313	14.439	40.507	14.189	1.00	9.72	A
ATOM	2226	CA	THR	A	313	13.670	39.363	14.685	1.00	8.88	A
ATOM	2227	CB	THR	A	313	12.149	39.541	14.449	1.00	13.95	A
ATOM	2228	OG1	THR	A	313	11.660	40.660	15.197	1.00	14.46	A
ATOM	2229	CG2	THR	A	313	11.398	38.288	14.832	1.00	12.76	A
ATOM	2230	C	THR	A	313	14.108	38.096	13.935	1.00	10.80	A
ATOM	2231	O	THR	A	313	14.318	37.042	14.538	1.00	11.41	A
ATOM	2232	N	GLY	A	314	14.218	38.204	12.615	1.00	11.55	A
ATOM	2233	CA	GLY	A	314	14.629	37.067	11.810	1.00	12.96	A
ATOM	2234	C	GLY	A	314	16.060	36.638	12.090	1.00	10.31	A
ATOM	2235	O	GLY	A	314	16.370	35.439	12.111	1.00	11.80	A
ATOM	2236	N	GLN	A	315	16.952	37.603	12.291	1.00	10.00	A
ATOM	2237	CA	GLN	A	315	18.360	37.280	12.586	1.00	10.98	A
ATOM	2238	CB	GLN	A	315	19.219	38.542	12.512	1.00	12.34	A
ATOM	2239	CG	GLN	A	315	19.286	39.069	11.071	1.00	13.86	A
ATOM	2240	CD	GLN	A	315	20.014	40.385	10.558	1.00	16.05	A
ATOM	2241	OE1	GLN	A	315	19.868	41.254	11.818	1.00	15.65	A
ATOM	2242	NE2	GLN	A	315	20.787	40.552	9.880	1.00	15.34	A
ATOM	2243	C	GLN	A	315	18.518	36.613	13.952	1.00	11.33	A
ATOM	2244	O	GLN	A	315	19.385	35.743	14.136	1.00	12.86	A
ATOM	2245	N	VAL	A	316	17.677	37.006	14.909	1.00	11.99	A
ATOM	2246	CA	VAL	A	316	17.719	36.389	16.238	1.00	11.29	A
ATOM	2247	CB	VAL	A	316	16.803	37.131	17.251	1.00	12.97	A
ATOM	2248	CG1	VAL	A	316	16.658	36.292	18.541	1.00	12.95	A
ATOM	2249	CG2	VAL	A	316	17.401	38.493	17.602	1.00	11.75	A
ATOM	2250	C	VAL	A	316	17.232	34.929	16.092	1.00	13.11	A
ATOM	2251	O	VAL	A	316	17.813	33.996	16.667	1.00	12.64	A
ATOM	2252	N	ARG	A	317	16.154	34.723	15.327	1.00	9.04	A
ATOM	2253	CA	ARG	A	317	15.672	33.364	15.115	1.00	12.87	A
ATOM	2254	CB	ARG	A	317	14.348	33.372	14.303	1.00	14.06	A
ATOM	2255	CG	ARG	A	317	13.148	33.951	15.076	1.00	13.07	A
ATOM	2256	CD	ARG	A	317	11.823	33.964	14.243	1.00	14.93	A
ATOM	2257	NE	ARG	A	317	11.520	32.611	13.765	1.00	14.57	A
ATOM	2258	CZ	ARG	A	317	10.894	31.677	14.480	1.00	10.03	A
ATOM	2259	NH1	ARG	A	317	10.470	31.934	15.704	1.00	9.62	A
ATOM	2260	NH2	ARG	A	317	10.730	30.461	13.983	1.00	13.56	A
ATOM	2261	C	ARG	A	317	16.730	32.491	14.434	1.00	12.01	A
ATOM	2262	O	ARG	A	317	16.879	31.320	14.783	1.00	12.09	A
ATOM	2263	N	ASN	A	318	17.462	33.033	13.464	1.00	11.68	A
ATOM	2264	CA	ASN	A	318	18.503	32.246	12.796	1.00	13.18	A
ATOM	2265	CB	ASN	A	318	19.123	33.028	11.629	1.00	11.52	A
ATOM	2266	CG	ASN	A	318	18.145	33.249	10.500	1.00	15.15	A
ATOM	2267	OD1	ASN	A	318	17.140	32.557	10.402	1.00	13.70	A
ATOM	2268	ND2	ASN	A	318	18.438	34.211	9.638	1.00	17.31	A
ATOM	2269	C	ASN	A	318	19.613	31.841	13.771	1.00	12.19	A
ATOM	2270	O	ASN	A	318	20.207	30.753	13.658	1.00	9.01	A
ATOM	2271	N	PHE	A	319	19.904	32.715	14.733	1.00	10.68	A
ATOM	2272	CA	PHE	A	319	20.936	32.376	15.707	1.00	9.90	A
ATOM	2273	CB	PHE	A	319	21.274	33.577	16.584	1.00	7.66	A
ATOM	2274	CG	PHE	A	319	22.105	33.212	17.794	1.00	10.09	A
ATOM	2275	CD1	PHE	A	319	23.351	32.644	17.631	1.00	6.01	A

FIGURE 5 (suite)

ATOM	2276	CD2	PHE	A	319	21.593	33.356	19.087	1.00	10.54	A
ATOM	2277	CE1	PHE	A	319	24.102	32.203	18.738	1.00	12.72	A
ATOM	2278	CE2	PHE	A	319	22.333	32.919	20.212	1.00	15.07	A
ATOM	2279	CZ	PHE	A	319	23.589	32.338	20.027	1.00	12.59	A
ATOM	2280	C	PHE	A	319	20.449	31.222	16.587	1.00	10.27	A
ATOM	2281	O	PHE	A	319	21.203	30.282	16.868	1.00	12.47	A
ATOM	2282	N	PHE	A	320	19.188	31.275	17.013	1.00	10.21	A
ATOM	2283	CA	PHE	A	320	18.649	30.213	17.860	1.00	10.79	A
ATOM	2284	CB	PHE	A	320	17.247	30.581	18.363	1.00	9.11	A
ATOM	2285	CG	PHE	A	320	17.246	31.285	19.698	1.00	7.96	A
ATOM	2286	CD1	PHE	A	320	16.762	30.642	20.833	1.00	9.52	A
ATOM	2287	CD2	PHE	A	320	17.723	32.583	19.822	1.00	12.60	A
ATOM	2288	CE1	PHE	A	320	16.750	31.282	22.082	1.00	6.69	A
ATOM	2289	CE2	PHE	A	320	17.712	33.244	21.075	1.00	9.45	A
ATOM	2290	CZ	PHE	A	320	17.220	32.579	22.209	1.00	8.89	A
ATOM	2291	C	PHE	A	320	18.598	28.912	17.089	1.00	7.76	A
ATOM	2292	O	PHE	A	320	18.856	27.838	17.634	1.00	9.90	A
ATOM	2293	N	THR	A	321	18.274	29.013	15.801	1.00	8.04	A
ATOM	2294	CA	THR	A	321	18.199	27.829	14.950	1.00	6.79	A
ATOM	2295	CB	THR	A	321	17.687	28.224	13.551	1.00	7.01	A
ATOM	2296	OG1	THR	A	321	16.334	28.695	13.691	1.00	11.25	A
ATOM	2297	CG2	THR	A	321	17.731	27.032	12.573	1.00	9.32	A
ATOM	2298	C	THR	A	321	19.535	27.128	14.872	1.00	11.09	A
ATOM	2299	O	THR	A	321	19.594	25.896	14.823	1.00	10.46	A
ATOM	2300	N	LYS	A	322	20.617	27.904	14.873	1.00	8.41	A
ATOM	2301	CA	LYS	A	322	21.950	27.319	14.849	1.00	8.00	A
ATOM	2302	CB	LYS	A	322	22.970	28.329	14.299	1.00	6.38	A
ATOM	2303	CG	LYS	A	322	24.410	27.805	14.359	1.00	10.15	A
ATOM	2304	CD	LYS	A	322	25.396	28.712	13.615	1.00	8.08	A
ATOM	2305	CE	LYS	A	322	26.665	27.922	13.317	1.00	11.78	A
ATOM	2306	NZ	LYS	A	322	27.577	28.702	12.437	1.00	18.79	A
ATOM	2307	C	LYS	A	322	22.415	26.857	16.242	1.00	9.52	A
ATOM	2308	O	LYS	A	322	22.864	25.711	16.425	1.00	9.02	A
ATOM	2309	N	HIS	A	323	22.289	27.735	17.231	1.00	10.06	A
ATOM	2310	CA	HIS	A	323	22.793	27.420	18.569	1.00	9.00	A
ATOM	2311	CB	HIS	A	323	22.710	28.677	19.469	1.00	7.78	A
ATOM	2312	CG	HIS	A	323	23.655	28.657	20.637	1.00	9.56	A
ATOM	2313	CD2	HIS	A	323	23.426	28.762	21.970	1.00	9.53	A
ATOM	2314	ND1	HIS	A	323	25.028	28.560	20.494	1.00	7.88	A
ATOM	2315	CE1	HIS	A	323	25.602	28.615	21.683	1.00	9.47	A
ATOM	2316	NE2	HIS	A	323	24.653	28.736	22.598	1.00	12.97	A
ATOM	2317	C	HIS	A	323	22.082	26.230	19.222	1.00	9.52	A
ATOM	2318	O	HIS	A	323	22.687	25.507	20.019	1.00	8.65	A
ATOM	2319	N	TYR	A	324	20.808	26.034	18.877	1.00	9.61	A
ATOM	2320	CA	TYR	A	324	20.024	24.911	19.427	1.00	10.38	A
ATOM	2321	CB	TYR	A	324	18.767	25.434	20.149	1.00	6.95	A
ATOM	2322	CG	TYR	A	324	19.137	26.376	21.277	1.00	7.33	A
ATOM	2323	CD1	TYR	A	324	19.195	27.752	21.072	1.00	5.99	A
ATOM	2324	CE1	TYR	A	324	19.656	28.618	22.097	1.00	8.99	A
ATOM	2325	CD2	TYR	A	324	19.533	25.882	22.513	1.00	7.61	A
ATOM	2326	CE2	TYR	A	324	19.994	26.731	23.525	1.00	5.98	A
ATOM	2327	CZ	TYR	A	324	20.052	28.094	23.303	1.00	7.54	A
ATOM	2328	OH	TYR	A	324	20.547	28.926	24.294	1.00	7.56	A
ATOM	2329	C	TYR	A	324	19.627	23.893	18.338	1.00	7.02	A
ATOM	2330	O	TYR	A	324	18.677	23.118	18.498	1.00	10.94	A
ATOM	2331	N	GLY	A	325	20.387	23.868	17.254	1.00	7.94	A
ATOM	2332	CA	GLY	A	325	20.064	22.938	16.181	1.00	7.51	A
ATOM	2333	C	GLY	A	325	20.514	21.493	16.386	1.00	12.01	A
ATOM	2334	O	GLY	A	325	21.492	21.227	17.097	1.00	10.59	A
ATOM	2335	N	THR	A	326	19.788	20.564	15.752	1.00	8.75	A
ATOM	2336	CA	THR	A	326	20.113	19.132	15.790	1.00	10.25	A
ATOM	2337	CB	THR	A	326	19.005	18.311	15.135	1.00	9.46	A
ATOM	2338	OG1	THR	A	326	17.759	18.707	15.708	1.00	10.73	A
ATOM	2339	CG2	THR	A	326	19.212	16.788	15.369	1.00	7.67	A
ATOM	2340	C	THR	A	326	21.432	18.937	15.038	1.00	9.78	A
ATOM	2341	O	THR	A	326	22.278	18.131	15.452	1.00	10.90	A
ATOM	2342	N	SER	A	327	21.614	19.688	13.953	1.00	12.37	A
ATOM	2343	CA	SER	A	327	22.858	19.666	13.176	1.00	11.58	A
ATOM	2344	CB	SER	A	327	22.743	18.752	11.935	1.00	14.65	A
ATOM	2345	OG	SER	A	327	21.725	19.192	11.051	1.00	10.13	A
ATOM	2346	C	SER	A	327	23.158	21.118	12.764	1.00	10.87	A
ATOM	2347	O	SER	A	327	22.419	22.031	13.149	1.00	9.05	A
ATOM	2348	N	ALA	A	328	24.228	21.331	12.000	1.00	11.22	A
ATOM	2349	CA	ALA	A	328	24.637	22.690	11.567	1.00	10.30	A
ATOM	2350	CB	ALA	A	328	23.682	23.234	10.518	1.00	12.01	A
ATOM	2351	C	ALA	A	328	24.602	23.592	12.790	1.00	11.88	A

FIGURE 5 (suite)

ATOM	2352	O	ALA	A	328	24.046	24.674	12.742	1.00	13.69	A
ATOM	2353	N	ASN	A	329	25.197	23.140	13.887	1.00	11.26	A
ATOM	2354	CA	ASN	A	329	25.150	23.910	15.123	1.00	10.51	A
ATOM	2355	CB	ASN	A	329	24.422	23.083	16.205	1.00	8.81	A
ATOM	2356	CG	ASN	A	329	25.132	21.771	16.536	1.00	9.32	A
ATOM	2357	OD1	ASN	A	329	26.352	21.717	16.573	1.00	11.49	A
ATOM	2358	ND2	ASN	A	329	24.360	20.714	16.792	1.00	10.75	A
ATOM	2359	C	ASN	A	329	26.526	24.402	15.604	1.00	12.21	A
ATOM	2360	O	ASN	A	329	27.515	24.381	14.849	1.00	9.35	A
ATOM	2361	N	ASP	A	330	26.586	24.863	16.851	1.00	10.38	A
ATOM	2362	CA	ASP	A	330	27.837	25.386	17.412	1.00	9.41	A
ATOM	2363	CB	ASP	A	330	27.575	26.677	18.208	1.00	10.91	A
ATOM	2364	CG	ASP	A	330	27.239	27.852	17.331	1.00	13.71	A
ATOM	2365	OD1	ASP	A	330	26.333	28.653	17.720	1.00	14.93	A
ATOM	2366	OD2	ASP	A	330	27.880	27.981	16.261	1.00	10.16	A
ATOM	2367	C	ASP	A	330	28.536	24.416	18.346	1.00	10.31	A
ATOM	2368	O	ASP	A	330	29.484	24.809	19.029	1.00	8.29	A
ATOM	2369	N	ASN	A	331	28.111	23.153	18.363	1.00	8.79	A
ATOM	2370	CA	ASN	A	331	28.698	22.217	19.311	1.00	10.91	A
ATOM	2371	CB	ASN	A	331	27.942	20.869	19.267	1.00	11.40	A
ATOM	2372	CG	ASN	A	331	26.579	20.924	19.989	1.00	15.36	A
ATOM	2373	OD1	ASN	A	331	25.926	19.893	20.194	1.00	12.09	A
ATOM	2374	ND2	ASN	A	331	26.156	22.115	20.372	1.00	9.71	A
ATOM	2375	C	ASN	A	331	30.220	22.012	19.218	1.00	12.28	A
ATOM	2376	O	ASN	A	331	30.877	21.866	20.255	1.00	12.57	A
ATOM	2377	N	ALA	A	332	30.795	22.001	18.012	1.00	10.00	A
ATOM	2378	CA	ALA	A	332	32.252	21.842	17.903	1.00	12.41	A
ATOM	2379	CB	ALA	A	332	32.677	21.733	16.445	1.00	12.06	A
ATOM	2380	C	ALA	A	332	32.964	23.028	18.548	1.00	8.53	A
ATOM	2381	O	ALA	A	332	33.973	22.872	19.247	1.00	11.75	A
ATOM	2382	N	ALA	A	333	32.447	24.216	18.297	1.00	9.64	A
ATOM	2383	CA	ALA	A	333	33.057	25.422	18.858	1.00	10.83	A
ATOM	2384	CB	ALA	A	333	32.424	26.655	18.223	1.00	9.42	A
ATOM	2385	C	ALA	A	333	32.910	25.473	20.379	1.00	10.44	A
ATOM	2386	O	ALA	A	333	33.787	25.982	21.096	1.00	9.81	A
ATOM	2387	N	ILE	A	334	31.787	24.963	20.869	1.00	9.49	A
ATOM	2388	CA	ILE	A	334	31.536	24.919	22.305	1.00	10.34	A
ATOM	2389	CB	ILE	A	334	30.099	24.404	22.567	1.00	7.35	A
ATOM	2390	CG2	ILE	A	334	29.902	24.030	24.056	1.00	4.48	A
ATOM	2391	CG1	ILE	A	334	29.093	25.467	22.091	1.00	8.68	A
ATOM	2392	CD1	ILE	A	334	27.628	24.953	22.043	1.00	8.29	A
ATOM	2393	C	ILE	A	334	32.593	24.003	22.946	1.00	9.03	A
ATOM	2394	O	ILE	A	334	33.239	24.352	23.954	1.00	6.82	A
ATOM	2395	N	GLN	A	335	32.805	22.847	22.333	1.00	6.99	A
ATOM	2396	CA	GLN	A	335	33.800	21.903	22.831	1.00	8.99	A
ATOM	2397	CB	GLN	A	335	33.695	20.589	22.053	1.00	11.58	A
ATOM	2398	CG	GLN	A	335	32.448	19.784	22.446	1.00	21.44	A
ATOM	2399	CD	GLN	A	335	32.279	18.518	21.598	1.00	30.71	A
ATOM	2400	OE1	GLN	A	335	33.212	18.083	20.927	1.00	34.68	A
ATOM	2401	NE2	GLN	A	335	31.089	17.926	21.638	1.00	37.34	A
ATOM	2402	C	GLN	A	335	35.223	22.438	22.774	1.00	12.27	A
ATOM	2403	O	GLN	A	335	36.014	22.219	23.704	1.00	10.25	A
ATOM	2404	N	ALA	A	336	35.547	23.143	21.690	1.00	10.75	A
ATOM	2405	CA	ALA	A	336	36.868	23.726	21.514	1.00	12.71	A
ATOM	2406	CB	ALA	A	336	36.989	24.375	20.091	1.00	9.35	A
ATOM	2407	C	ALA	A	336	37.109	24.794	22.591	1.00	11.11	A
ATOM	2408	O	ALA	A	336	38.247	25.134	22.894	1.00	11.00	A
ATOM	2409	N	ASN	A	337	36.025	25.310	23.164	1.00	8.06	A
ATOM	2410	CA	ASN	A	337	36.125	26.342	24.185	1.00	9.10	A
ATOM	2411	CB	ASN	A	337	35.098	27.440	23.887	1.00	8.86	A
ATOM	2412	CG	ASN	A	337	35.621	28.457	22.874	1.00	12.21	A
ATOM	2413	OD1	ASN	A	337	36.333	29.417	23.230	1.00	12.38	A
ATOM	2414	ND2	ASN	A	337	35.301	28.237	21.605	1.00	13.95	A
ATOM	2415	C	ASN	A	337	35.979	25.816	25.622	1.00	9.52	A
ATOM	2416	O	ASN	A	337	35.647	26.565	26.534	1.00	7.92	A
ATOM	2417	N	ALA	A	338	36.242	24.523	25.806	1.00	8.29	A
ATOM	2418	CA	ALA	A	338	36.194	23.863	27.117	1.00	8.92	A
ATOM	2419	CB	ALA	A	338	37.188	24.526	28.069	1.00	10.50	A
ATOM	2420	C	ALA	A	338	34.825	23.786	27.785	1.00	8.55	A
ATOM	2421	O	ALA	A	338	34.732	23.671	29.000	1.00	10.41	A
ATOM	2422	N	PHE	A	339	33.765	23.844	27.002	1.00	7.84	A
ATOM	2423	CA	PHE	A	339	32.410	23.781	27.553	1.00	8.93	A
ATOM	2424	CB	PHE	A	339	31.624	25.034	27.120	1.00	7.76	A
ATOM	2425	CG	PHE	A	339	32.258	26.345	27.576	1.00	10.23	A
ATOM	2426	CD1	PHE	A	339	32.566	26.557	28.923	1.00	11.28	A
ATOM	2427	CD2	PHE	A	339	32.497	27.369	26.664	1.00	9.75	A

FIGURE 5 (suite)

ATOM	2428	CE1	PHE	A	339	33.108	27.795	29.360	1.00	11.58	A
ATOM	2429	CE2	PHE	A	339	33.033	28.613	27.077	1.00	8.17	A
ATOM	2430	CZ	PHE	A	339	33.339	28.820	28.437	1.00	8.56	A
ATOM	2431	C	PHE	A	339	31.647	22.514	27.151	1.00	9.93	A
ATOM	2432	O	PHE	A	339	32.084	21.742	26.279	1.00	9.23	A
ATOM	2433	N	VAL	A	340	30.508	22.304	27.797	1.00	8.19	A
ATOM	2434	CA	VAL	A	340	29.669	21.139	27.531	1.00	10.26	A
ATOM	2435	CB	VAL	A	340	29.169	20.468	28.851	1.00	11.72	A
ATOM	2436	CG1	VAL	A	340	28.219	19.269	28.538	1.00	8.46	A
ATOM	2437	CG2	VAL	A	340	30.346	19.998	29.679	1.00	8.91	A
ATOM	2438	C	VAL	A	340	28.439	21.577	26.742	1.00	6.33	A
ATOM	2439	O	VAL	A	340	27.675	22.433	27.186	1.00	6.81	A
ATOM	2440	N	PRO	A	341	28.255	21.021	25.547	1.00	6.85	A
ATOM	2441	CD	PRO	A	341	29.193	20.162	24.797	1.00	10.26	A
ATOM	2442	CA	PRO	A	341	27.082	21.373	24.736	1.00	9.67	A
ATOM	2443	CB	PRO	A	341	27.275	20.537	23.468	1.00	11.39	A
ATOM	2444	CG	PRO	A	341	28.752	20.386	23.363	1.00	14.97	A
ATOM	2445	C	PRO	A	341	25.807	20.931	25.497	1.00	10.96	A
ATOM	2446	O	PRO	A	341	25.851	20.024	26.342	1.00	10.96	A
ATOM	2447	N	LEU	A	342	24.673	21.558	25.211	1.00	8.13	A
ATOM	2448	CA	LEU	A	342	23.435	21.157	25.870	1.00	10.08	A
ATOM	2449	CB	LEU	A	342	22.326	22.194	25.646	1.00	12.81	A
ATOM	2450	CG	LEU	A	342	22.558	23.605	26.207	1.00	16.13	A
ATOM	2451	CD1	LEU	A	342	21.280	24.428	26.007	1.00	10.84	A
ATOM	2452	CD2	LEU	A	342	22.908	23.542	27.715	1.00	14.00	A
ATOM	2453	C	LEU	A	342	22.981	19.821	25.288	1.00	11.91	A
ATOM	2454	O	LEU	A	342	23.142	19.565	24.072	1.00	10.04	A
ATOM	2455	N	PRO	A	343	22.437	18.937	26.147	1.00	10.12	A
ATOM	2456	CD	PRO	A	343	22.407	19.074	27.618	1.00	8.23	A
ATOM	2457	CA	PRO	A	343	21.947	17.622	25.721	1.00	11.60	A
ATOM	2458	CB	PRO	A	343	21.407	17.006	27.021	1.00	11.29	A
ATOM	2459	CG	PRO	A	343	22.287	17.643	28.083	1.00	12.10	A
ATOM	2460	C	PRO	A	343	20.850	17.839	24.688	1.00	11.38	A
ATOM	2461	O	PRO	A	343	20.229	18.896	24.648	1.00	10.75	A
ATOM	2462	N	SER	A	344	20.590	16.836	23.861	1.00	9.55	A
ATOM	2463	CA	SER	A	344	19.592	16.995	22.801	1.00	8.34	A
ATOM	2464	CB	SER	A	344	19.547	15.741	21.940	1.00	15.39	A
ATOM	2465	OG	SER	A	344	19.245	14.625	22.760	1.00	23.25	A
ATOM	2466	C	SER	A	344	18.185	17.315	23.281	1.00	8.79	A
ATOM	2467	O	SER	A	344	17.474	18.051	22.615	1.00	11.06	A
ATOM	2468	N	ASN	A	345	17.751	16.744	24.410	1.00	11.97	A
ATOM	2469	CA	ASN	A	345	16.403	17.061	24.874	1.00	13.51	A
ATOM	2470	CB	ASN	A	345	15.962	16.128	26.015	1.00	11.25	A
ATOM	2471	CG	ASN	A	345	16.896	16.145	27.206	1.00	19.63	A
ATOM	2472	OD1	ASN	A	345	18.105	16.399	27.083	1.00	15.65	A
ATOM	2473	ND2	ASN	A	345	16.343	15.822	28.379	1.00	15.03	A
ATOM	2474	C	ASN	A	345	16.296	18.532	25.277	1.00	12.03	A
ATOM	2475	O	ASN	A	345	15.236	19.131	25.167	1.00	11.72	A
ATOM	2476	N	TRP	A	346	17.397	19.115	25.739	1.00	10.97	A
ATOM	2477	CA	TRP	A	346	17.397	20.533	26.097	1.00	9.55	A
ATOM	2478	CB	TRP	A	346	18.663	20.890	26.881	1.00	8.50	A
ATOM	2479	CG	TRP	A	346	18.475	20.695	28.372	1.00	9.10	A
ATOM	2480	CD2	TRP	A	346	17.927	21.660	29.285	1.00	10.08	A
ATOM	2481	CE2	TRP	A	346	17.831	21.036	30.549	1.00	12.11	A
ATOM	2482	CE3	TRP	A	346	17.502	22.994	29.149	1.00	9.60	A
ATOM	2483	CD1	TRP	A	346	18.694	19.553	29.099	1.00	9.06	A
ATOM	2484	NE1	TRP	A	346	18.304	19.752	30.411	1.00	9.93	A
ATOM	2485	CZ2	TRP	A	346	17.323	21.705	31.682	1.00	9.30	A
ATOM	2486	CZ3	TRP	A	346	17.004	23.662	30.261	1.00	10.14	A
ATOM	2487	CH2	TRP	A	346	16.917	23.012	31.522	1.00	12.99	A
ATOM	2488	C	TRP	A	346	17.298	21.390	24.824	1.00	10.69	A
ATOM	2489	O	TRP	A	346	16.509	22.333	24.769	1.00	13.16	A
ATOM	2490	N	LYS	A	347	18.087	21.074	23.804	1.00	9.34	A
ATOM	2491	CA	LYS	A	347	17.984	21.852	22.557	1.00	8.27	A
ATOM	2492	CB	LYS	A	347	18.902	21.287	21.466	1.00	12.86	A
ATOM	2493	CG	LYS	A	347	20.416	21.357	21.748	1.00	11.51	A
ATOM	2494	CD	LYS	A	347	21.221	21.071	20.440	1.00	14.73	A
ATOM	2495	CE	LYS	A	347	22.733	21.317	20.590	1.00	14.12	A
ATOM	2496	NZ	LYS	A	347	23.467	20.312	21.462	1.00	10.37	A
ATOM	2497	C	LYS	A	347	16.549	21.789	22.030	1.00	10.83	A
ATOM	2498	O	LYS	A	347	15.956	22.814	21.631	1.00	8.78	A
ATOM	2499	N	ALA	A	348	15.987	20.583	21.997	1.00	9.70	A
ATOM	2500	CA	ALA	A	348	14.627	20.418	21.472	1.00	9.41	A
ATOM	2501	CB	ALA	A	348	14.238	18.928	21.448	1.00	12.04	A
ATOM	2502	C	ALA	A	348	13.589	21.224	22.251	1.00	10.82	A
ATOM	2503	O	ALA	A	348	12.678	21.830	21.657	1.00	9.58	A

FIGURE 5 (suite)

ATOM	2504	N	ALA	A	349	13.735	21.261	23.569	1.00	9.39	A
ATOM	2505	CA	ALA	A	349	12.791	22.018	24.392	1.00	8.51	A
ATOM	2506	CB	ALA	A	349	13.045	21.750	25.891	1.00	8.51	A
ATOM	2507	C	ALA	A	349	12.909	23.518	24.095	1.00	10.22	A
ATOM	2508	O	ALA	A	349	11.888	24.224	24.012	1.00	8.91	A
ATOM	2509	N	VAL	A	350	14.140	24.002	23.930	1.00	12.16	A
ATOM	2510	CA	VAL	A	350	14.347	25.423	23.649	1.00	8.94	A
ATOM	2511	CB	VAL	A	350	15.863	25.794	23.629	1.00	8.30	A
ATOM	2512	CG1	VAL	A	350	16.075	27.221	23.071	1.00	8.00	A
ATOM	2513	CG2	VAL	A	350	16.439	25.729	25.075	1.00	8.81	A
ATOM	2514	C	VAL	A	350	13.709	25.763	22.305	1.00	10.89	A
ATOM	2515	O	VAL	A	350	13.046	26.787	22.177	1.00	11.46	A
ATOM	2516	N	ARG	A	351	13.890	24.895	21.313	1.00	10.91	A
ATOM	2517	CA	ARG	A	351	13.289	25.144	20.002	1.00	11.54	A
ATOM	2518	CB	ARG	A	351	13.765	24.106	18.988	1.00	10.07	A
ATOM	2519	CG	ARG	A	351	15.237	24.167	18.647	1.00	10.05	A
ATOM	2520	CD	ARG	A	351	15.527	23.433	17.312	1.00	14.16	A
ATOM	2521	NE	ARG	A	351	14.971	22.067	17.282	1.00	17.52	A
ATOM	2522	CZ	ARG	A	351	15.577	20.991	17.780	1.00	14.15	A
ATOM	2523	NH1	ARG	A	351	14.993	19.802	17.708	1.00	14.19	A
ATOM	2524	NH2	ARG	A	351	16.775	21.097	18.338	1.00	15.54	A
ATOM	2525	C	ARG	A	351	11.750	25.097	20.069	1.00	13.24	A
ATOM	2526	O	ARG	A	351	11.061	25.925	19.477	1.00	10.64	A
ATOM	2527	N	ALA	A	352	11.221	24.112	20.786	1.00	10.94	A
ATOM	2528	CA	ALA	A	352	9.772	23.942	20.890	1.00	13.45	A
ATOM	2529	CB	ALA	A	352	9.447	22.656	21.636	1.00	14.54	A
ATOM	2530	C	ALA	A	352	9.028	25.112	21.527	1.00	14.05	A
ATOM	2531	O	ALA	A	352	7.875	25.385	21.193	1.00	9.92	A
ATOM	2532	N	SER	A	353	9.669	25.802	22.454	1.00	9.51	A
ATOM	2533	CA	SER	A	353	9.024	26.932	23.094	1.00	10.39	A
ATOM	2534	CB	SER	A	353	9.503	27.088	24.548	1.00	11.56	A
ATOM	2535	OG	SER	A	353	8.802	26.220	25.436	1.00	14.83	A
ATOM	2536	C	SER	A	353	9.308	28.245	22.386	1.00	12.07	A
ATOM	2537	O	SER	A	353	8.403	29.033	22.178	1.00	12.33	A
ATOM	2538	N	TYR	A	354	10.568	28.459	22.015	1.00	10.56	A
ATOM	2539	CA	TYR	A	354	10.955	29.733	21.455	1.00	8.65	A
ATOM	2540	CB	TYR	A	354	12.240	30.188	22.159	1.00	11.42	A
ATOM	2541	CG	TYR	A	354	12.077	30.164	23.670	1.00	11.26	A
ATOM	2542	CD1	TYR	A	354	11.168	31.007	24.296	1.00	11.16	A
ATOM	2543	CE1	TYR	A	354	10.962	30.955	25.673	1.00	13.86	A
ATOM	2544	CD2	TYR	A	354	12.795	29.265	24.455	1.00	12.94	A
ATOM	2545	CE2	TYR	A	354	12.608	29.204	25.846	1.00	13.83	A
ATOM	2546	CZ	TYR	A	354	11.692	30.048	26.437	1.00	15.93	A
ATOM	2547	OH	TYR	A	354	11.496	29.985	27.784	1.00	31.84	A
ATOM	2548	C	TYR	A	354	11.069	29.882	19.951	1.00	11.12	A
ATOM	2549	O	TYR	A	354	11.137	31.011	19.456	1.00	11.00	A
ATOM	2550	N	LEU	A	355	11.097	28.778	19.218	1.00	9.87	A
ATOM	2551	CA	LEU	A	355	11.156	28.896	17.757	1.00	11.35	A
ATOM	2552	CB	LEU	A	355	12.292	28.069	17.185	1.00	12.01	A
ATOM	2553	CG	LEU	A	355	13.697	28.633	17.424	1.00	18.77	A
ATOM	2554	CD1	LEU	A	355	14.731	27.617	16.930	1.00	13.44	A
ATOM	2555	CD2	LEU	A	355	13.856	29.963	16.666	1.00	19.42	A
ATOM	2556	C	LEU	A	355	9.848	28.484	17.086	1.00	12.49	A
ATOM	2557	O	LEU	A	355	9.337	29.208	16.231	1.00	13.91	A
ATOM	2558	N	THR	A	356	9.300	27.331	17.458	1.00	13.88	A
ATOM	2559	CA	THR	A	356	8.036	26.866	16.849	1.00	16.44	A
ATOM	2560	CB	THR	A	356	7.414	25.759	17.704	1.00	19.06	A
ATOM	2561	OG1	THR	A	356	8.352	24.678	17.794	1.00	22.02	A
ATOM	2562	CG2	THR	A	356	6.108	25.265	17.077	1.00	20.44	A
ATOM	2563	C	THR	A	356	7.058	28.040	16.684	1.00	15.88	A
ATOM	2564	O	THR	A	356	6.609	28.642	17.658	1.00	14.53	A
ATOM	2565	N	ALA	A	357	6.720	28.362	15.441	1.00	16.53	A
ATOM	2566	CA	ALA	A	357	5.892	29.536	15.175	1.00	15.13	A
ATOM	2567	CB	ALA	A	357	5.654	29.669	13.662	1.00	17.87	A
ATOM	2568	C	ALA	A	357	4.569	29.630	15.918	1.00	18.27	A
ATOM	2569	O	ALA	A	357	4.141	30.714	16.295	1.00	19.17	A
ATOM	2570	N	SER	A	358	3.930	28.492	16.127	1.00	18.84	A
ATOM	2571	CA	SER	A	358	2.643	28.444	16.800	1.00	22.62	A
ATOM	2572	CB	SER	A	358	1.953	27.125	16.459	1.00	18.79	A
ATOM	2573	OG	SER	A	358	2.853	26.049	16.654	1.00	21.93	A
ATOM	2574	C	SER	A	358	2.716	28.607	18.318	1.00	22.54	A
ATOM	2575	O	SER	A	358	1.719	28.918	18.949	1.00	19.82	A
ATOM	2576	N	ASN	A	359	3.886	28.410	18.916	1.00	20.48	A
ATOM	2577	CA	ASN	A	359	3.950	28.550	20.358	1.00	16.65	A
ATOM	2578	CB	ASN	A	359	5.249	27.956	20.909	1.00	12.27	A
ATOM	2579	CG	ASN	A	359	5.180	27.718	22.387	1.00	11.80	A

FIGURE 5 (suite)

ATOM	2580	OD1	ASN	A	359	4.992	28.652	23.170	1.00	16.11	A
ATOM	2581	ND2	ASN	A	359	5.329	26.451	22.793	1.00	14.58	A
ATOM	2582	C	ASN	A	359	3.844	30.019	20.745	1.00	16.93	A
ATOM	2583	O	ASN	A	359	4.550	30.861	20.194	1.00	15.08	A
ATOM	2584	N	ALA	A	360	2.972	30.306	21.712	1.00	15.71	A
ATOM	2585	CA	ALA	A	360	2.759	31.664	22.208	1.00	18.67	A
ATOM	2586	CB	ALA	A	360	1.688	31.651	23.320	1.00	22.67	A
ATOM	2587	C	ALA	A	360	4.041	32.309	22.744	1.00	18.59	A
ATOM	2588	O	ALA	A	360	4.138	33.532	22.825	1.00	16.11	A
ATOM	2589	N	LEU	A	361	5.010	31.488	23.144	1.00	14.62	A
ATOM	2590	CA	LEU	A	361	6.276	32.021	23.653	1.00	11.27	A
ATOM	2591	CB	LEU	A	361	6.863	31.060	24.685	1.00	15.51	A
ATOM	2592	CG	LEU	A	361	6.087	30.788	25.971	1.00	15.37	A
ATOM	2593	CD1	LEU	A	361	6.713	29.586	26.688	1.00	15.50	A
ATOM	2594	CD2	LEU	A	361	6.086	32.030	26.849	1.00	14.07	A
ATOM	2595	C	LEU	A	361	7.334	32.219	22.545	1.00	12.87	A
ATOM	2596	O	LEU	A	361	8.430	32.716	22.818	1.00	12.41	A
ATOM	2597	N	SER	A	362	7.036	31.821	21.314	1.00	9.97	A
ATOM	2598	CA	SER	A	362	8.044	31.936	20.257	1.00	10.76	A
ATOM	2599	CB	SER	A	362	7.627	31.145	19.011	1.00	15.72	A
ATOM	2600	OG	SER	A	362	6.470	31.707	18.416	1.00	18.79	A
ATOM	2601	C	SER	A	362	8.454	33.338	19.822	1.00	12.29	A
ATOM	2602	O	SER	A	362	7.637	34.258	19.742	1.00	12.85	A
ATOM	2603	N	ILE	A	363	9.741	33.457	19.512	1.00	10.84	A
ATOM	2604	CA	ILE	A	363	10.353	34.698	19.072	1.00	14.99	A
ATOM	2605	CB	ILE	A	363	11.850	34.461	18.777	1.00	13.05	A
ATOM	2606	CG2	ILE	A	363	12.483	35.713	18.198	1.00	12.46	A
ATOM	2607	CG1	ILE	A	363	12.578	34.071	20.064	1.00	15.60	A
ATOM	2608	CD1	ILE	A	363	13.960	33.442	19.815	1.00	11.48	A
ATOM	2609	C	ILE	A	363	9.639	35.206	17.807	1.00	14.29	A
ATOM	2610	O	ILE	A	363	9.509	34.481	16.830	1.00	12.01	A
ATOM	2611	N	GLY	A	364	9.176	36.451	17.848	1.00	15.53	A
ATOM	2612	CA	GLY	A	364	8.477	37.034	16.717	1.00	14.88	A
ATOM	2613	C	GLY	A	364	7.040	36.567	16.514	1.00	19.34	A
ATOM	2614	O	GLY	A	364	6.436	36.872	15.487	1.00	19.36	A
ATOM	2615	N	ASP	A	365	6.471	35.842	17.474	1.00	15.42	A
ATOM	2616	CA	ASP	A	365	5.094	35.360	17.323	1.00	16.08	A
ATOM	2617	CB	ASP	A	365	4.625	34.691	18.613	1.00	17.24	A
ATOM	2618	CG	ASP	A	365	3.195	34.201	18.516	1.00	22.13	A
ATOM	2619	OD1	ASP	A	365	2.992	33.003	18.238	1.00	24.97	A
ATOM	2620	OD2	ASP	A	365	2.272	35.025	18.698	1.00	22.46	A
ATOM	2621	C	ASP	A	365	4.100	36.490	16.954	1.00	20.12	A
ATOM	2622	O	ASP	A	365	3.979	37.482	17.668	1.00	17.92	A
ATOM	2623	N	SER	A	366	3.379	36.317	15.848	1.00	21.25	A
ATOM	2624	CA	SER	A	366	2.419	37.319	15.360	1.00	19.32	A
ATOM	2625	CB	SER	A	366	1.704	36.787	14.108	1.00	21.13	A
ATOM	2626	OG	SER	A	366	2.640	36.400	13.125	1.00	29.92	A
ATOM	2627	C	SER	A	366	1.359	37.814	16.342	1.00	15.84	A
ATOM	2628	O	SER	A	366	1.155	39.010	16.461	1.00	22.39	A
ATOM	2629	N	ALA	A	367	0.655	36.920	17.024	1.00	18.40	A
ATOM	2630	CA	ALA	A	367	-0.384	37.363	17.965	1.00	22.33	A
ATOM	2631	CB	ALA	A	367	-1.220	36.175	18.431	1.00	19.13	A
ATOM	2632	C	ALA	A	367	0.182	38.093	19.187	1.00	25.24	A
ATOM	2633	O	ALA	A	367	-0.402	39.066	19.682	1.00	26.45	A
ATOM	2634	N	VAL	A	368	1.311	37.612	19.692	1.00	24.39	A
ATOM	2635	CA	VAL	A	368	1.903	38.229	20.864	1.00	21.43	A
ATOM	2636	CB	VAL	A	368	2.729	37.182	21.657	1.00	23.84	A
ATOM	2637	CG1	VAL	A	368	3.447	37.838	22.850	1.00	19.42	A
ATOM	2638	CG2	VAL	A	368	1.810	36.094	22.148	1.00	25.28	A
ATOM	2639	C	VAL	A	368	2.770	39.447	20.558	1.00	19.50	A
ATOM	2640	O	VAL	A	368	2.713	40.440	21.277	1.00	22.77	A
ATOM	2641	N	CYS	A	369	3.557	39.396	19.491	1.00	17.47	A
ATOM	2642	CA	CYS	A	369	4.448	40.505	19.195	1.00	20.32	A
ATOM	2643	C	CYS	A	369	3.919	41.648	18.322	1.00	23.64	A
ATOM	2644	O	CYS	A	369	4.617	42.639	18.120	1.00	26.98	A
ATOM	2645	CB	CYS	A	369	5.746	39.977	18.581	1.00	22.42	A
ATOM	2646	SG	CYS	A	369	6.819	38.961	19.671	1.00	19.53	A
ATOM	2647	N	GLY	A	370	2.698	41.521	17.812	1.00	25.38	A
ATOM	2648	CA	GLY	A	370	2.154	42.575	16.966	1.00	27.80	A
ATOM	2649	C	GLY	A	370	2.190	43.938	17.627	1.00	21.46	A
ATOM	2650	O	GLY	A	370	1.631	44.112	18.705	1.00	25.76	A
ATOM	2651	N	GLY	A	371	2.872	44.885	16.988	1.00	20.44	A
ATOM	2652	CA	GLY	A	371	2.970	46.237	17.516	1.00	23.12	A
ATOM	2653	C	GLY	A	371	3.913	46.463	18.695	1.00	26.63	A
ATOM	2654	O	GLY	A	371	3.946	47.561	19.263	1.00	23.97	A
ATOM	2655	N	LYS	A	372	4.689	45.443	19.057	1.00	23.24	A

FIGURE 5 (suite)

ATOM	2656	CA	LYS	A	372	5.612	45.537	20.197	1.00	21.66	A
ATOM	2657	CB	LYS	A	372	5.141	44.605	21.296	1.00	19.20	A
ATOM	2658	CG	LYS	A	372	3.715	44.856	21.675	1.00	25.31	A
ATOM	2659	CD	LYS	A	372	3.278	43.936	22.769	1.00	24.34	A
ATOM	2660	CE	LYS	A	372	1.884	44.315	23.208	1.00	29.63	A
ATOM	2661	NZ	LYS	A	372	1.426	43.423	24.285	1.00	25.95	A
ATOM	2662	C	LYS	A	372	7.037	45.167	19.855	1.00	18.74	A
ATOM	2663	O	LYS	A	372	7.337	44.799	18.721	1.00	17.43	A
ATOM	2664	N	GLY	A	373	7.917	45.247	20.852	1.00	15.44	A
ATOM	2665	CA	GLY	A	373	9.297	44.876	20.616	1.00	12.87	A
ATOM	2666	C	GLY	A	373	10.366	45.876	21.015	1.00	17.42	A
ATOM	2667	O	GLY	A	373	10.168	47.106	20.965	1.00	13.70	A
ATOM	2668	N	ARG	A	374	11.517	45.342	21.419	1.00	14.49	A
ATOM	2669	CA	ARG	A	374	12.639	46.187	21.792	1.00	13.29	A
ATOM	2670	CB	ARG	A	374	13.786	45.339	22.333	1.00	15.72	A
ATOM	2671	CG	ARG	A	374	13.456	44.710	23.692	1.00	18.10	A
ATOM	2672	CD	ARG	A	374	14.668	44.080	24.332	1.00	20.11	A
ATOM	2673	NE	ARG	A	374	15.729	45.034	24.665	1.00	13.47	A
ATOM	2674	CZ	ARG	A	374	16.143	45.296	25.899	1.00	13.50	A
ATOM	2675	NH1	ARG	A	374	15.564	44.694	26.928	1.00	11.14	A
ATOM	2676	NH2	ARG	A	374	17.206	46.082	26.100	1.00	9.65	A
ATOM	2677	C	ARG	A	374	13.097	46.989	20.563	1.00	14.09	A
ATOM	2678	O	ARG	A	374	13.008	46.517	19.411	1.00	13.90	A
ATOM	2679	N	PRO	A	375	13.575	48.225	20.797	1.00	13.52	A
ATOM	2680	CD	PRO	A	375	13.680	48.834	22.133	1.00	12.37	A
ATOM	2681	CA	PRO	A	375	14.051	49.137	19.753	1.00	15.51	A
ATOM	2682	CB	PRO	A	375	14.304	50.445	20.516	1.00	18.56	A
ATOM	2683	CG	PRO	A	375	14.669	49.958	21.903	1.00	16.56	A
ATOM	2684	C	PRO	A	375	15.282	48.622	19.017	1.00	16.94	A
ATOM	2685	O	PRO	A	375	16.130	47.953	19.605	1.00	16.29	A
ATOM	2686	N	GLU	A	376	15.384	48.956	17.733	1.00	14.83	A
ATOM	2687	CA	GLU	A	376	16.501	48.480	16.928	1.00	14.54	A
ATOM	2688	CB	GLU	A	376	16.191	48.638	15.429	1.00	20.94	A
ATOM	2689	CG	GLU	A	376	15.989	50.054	14.930	1.00	25.93	A
ATOM	2690	CD	GLU	A	376	15.840	50.093	13.408	1.00	28.12	A
ATOM	2691	OE1	GLU	A	376	16.852	50.265	12.693	1.00	27.73	A
ATOM	2692	OE2	GLU	A	376	14.706	49.921	12.926	1.00	22.85	A
ATOM	2693	C	GLU	A	376	17.818	49.144	17.258	1.00	15.46	A
ATOM	2694	O	GLU	A	376	17.779	50.308	17.715	1.00	20.34	A
ATOM	2695	OXT	GLU	A	376	18.870	48.501	17.040	1.00	17.16	A
ATOM	2696	OH2	WAT	S1500		35.620	33.372	34.950	1.00	7.74	S
ATOM	2697	OH2	WAT	S1501		26.719	26.585	54.115	1.00	13.35	S
ATOM	2698	OH2	WAT	S1502		32.910	38.720	42.612	1.00	11.02	S
ATOM	2699	OH2	WAT	S1503		25.842	40.990	19.393	1.00	10.30	S
ATOM	2700	OH2	WAT	S1504		47.855	24.508	32.439	1.00	11.64	S
ATOM	2701	OH2	WAT	S1505		37.575	38.877	30.460	1.00	13.25	S
ATOM	2702	OH2	WAT	S1506		43.970	19.166	36.360	1.00	11.89	S
ATOM	2703	OH2	WAT	S1507		51.431	26.280	38.870	1.00	11.08	S
ATOM	2704	OH2	WAT	S1508		21.180	34.238	33.496	1.00	10.94	S
ATOM	2705	OH2	WAT	S1509		34.016	23.145	55.150	1.00	7.21	S
ATOM	2706	OH2	WAT	S1510		34.137	35.767	50.996	1.00	14.32	S
ATOM	2707	OH2	WAT	S1511		29.833	31.064	61.815	1.00	12.62	S
ATOM	2708	OH2	WAT	S1512		36.421	34.348	51.750	1.00	8.81	S
ATOM	2709	OH2	WAT	S1513		24.593	22.841	22.601	1.00	14.49	S
ATOM	2710	OH2	WAT	S1514		33.875	20.919	53.336	1.00	15.73	S
ATOM	2711	OH2	WAT	S1515		55.590	18.894	44.228	1.00	20.22	S
ATOM	2712	OH2	WAT	S1516		25.163	24.507	19.298	1.00	7.32	S
ATOM	2713	OH2	WAT	S1517		29.287	27.565	53.584	1.00	10.43	S
ATOM	2714	OH2	WAT	S1518		27.630	35.157	54.573	1.00	11.84	S
ATOM	2715	OH2	WAT	S1519		34.308	40.814	45.314	1.00	9.91	S
ATOM	2716	OH2	WAT	S1520		24.097	26.340	47.444	1.00	12.35	S
ATOM	2717	OH2	WAT	S1521		26.289	17.353	26.191	1.00	14.15	S
ATOM	2718	OH2	WAT	S1522		31.025	26.248	57.309	1.00	9.97	S
ATOM	2719	OH2	WAT	S1523		16.012	33.323	36.822	1.00	10.61	S
ATOM	2720	OH2	WAT	S1524		35.079	31.981	26.882	1.00	7.27	S
ATOM	2721	OH2	WAT	S1525		48.948	16.302	35.666	1.00	22.32	S
ATOM	2722	OH2	WAT	S1526		23.036	32.247	50.228	1.00	12.80	S
ATOM	2723	OH2	WAT	S1527		41.445	42.204	48.819	1.00	16.71	S
ATOM	2724	OH2	WAT	S1528		30.777	34.835	16.827	1.00	12.96	S
ATOM	2725	OH2	WAT	S1529		9.482	33.895	27.983	1.00	10.22	S
ATOM	2726	OH2	WAT	S1530		10.107	31.646	29.601	1.00	12.12	S
ATOM	2727	OH2	WAT	S1531		37.836	31.446	58.127	1.00	18.63	S
ATOM	2728	OH2	WAT	S1532		23.419	29.528	35.937	1.00	10.10	S
ATOM	2729	OH2	WAT	S1533		36.234	16.727	51.505	1.00	9.28	S
ATOM	2730	OH2	WAT	S1534		5.728	38.503	24.985	1.00	13.33	S
ATOM	2731	OH2	WAT	S1535		29.914	14.295	35.432	1.00	16.41	S

FIGURE 5 (suite)

ATOM	2732	OH2	WAT	S1536	31.310	38.281	18.695	1.00	9.93	S
ATOM	2733	OH2	WAT	S1537	44.863	16.606	36.022	1.00	15.09	S
ATOM	2734	OH2	WAT	S1538	40.186	22.869	38.700	1.00	9.90	S
ATOM	2735	OH2	WAT	S1539	37.549	20.501	28.090	1.00	13.36	S
ATOM	2736	OH2	WAT	S1540	12.913	31.829	29.436	1.00	9.36	S
ATOM	2737	OH2	WAT	S1541	30.589	15.671	37.530	1.00	12.47	S
ATOM	2738	OH2	WAT	S1542	23.885	35.406	43.402	1.00	18.37	S
ATOM	2739	OH2	WAT	S1543	8.663	34.010	25.289	1.00	13.37	S
ATOM	2740	OH2	WAT	S1544	13.484	46.444	33.757	1.00	12.24	S
ATOM	2741	OH2	WAT	S1545	27.923	19.477	57.944	1.00	11.68	S
ATOM	2742	OH2	WAT	S1546	17.540	33.345	7.715	1.00	19.22	S
ATOM	2743	OH2	WAT	S1547	51.552	13.602	41.885	1.00	25.84	S
ATOM	2744	OH2	WAT	S1548	27.270	26.074	40.675	1.00	10.51	S
ATOM	2745	OH2	WAT	S1549	27.760	43.771	20.816	1.00	13.46	S
ATOM	2746	OH2	WAT	S1550	37.046	17.292	27.914	1.00	14.34	S
ATOM	2747	OH2	WAT	S1551	37.573	33.819	20.741	1.00	23.07	S
ATOM	2748	OH2	WAT	S1552	40.930	14.067	35.565	1.00	17.08	S
ATOM	2749	OH2	WAT	S1553	4.472	29.061	32.567	1.00	18.41	S
ATOM	2750	OH2	WAT	S1554	26.302	32.912	28.375	1.00	10.00	S
ATOM	2751	OH2	WAT	S1555	14.165	45.737	16.934	1.00	13.06	S
ATOM	2752	OH2	WAT	S1556	29.555	43.029	36.030	1.00	7.32	S
ATOM	2753	OH2	WAT	S1557	36.451	34.819	37.298	1.00	11.33	S
ATOM	2754	OH2	WAT	S1558	31.931	17.255	49.603	1.00	39.16	S
ATOM	2755	OH2	WAT	S1559	23.622	26.926	37.001	1.00	11.87	S
ATOM	2756	OH2	WAT	S1560	31.327	13.311	33.059	1.00	12.47	S
ATOM	2757	OH2	WAT	S1561	44.899	41.787	36.741	1.00	23.25	S
ATOM	2758	OH2	WAT	S1562	44.879	35.365	50.334	1.00	9.60	S
ATOM	2759	OH2	WAT	S1563	20.827	50.011	18.100	1.00	15.06	S
ATOM	2760	OH2	WAT	S1564	24.374	31.041	38.304	1.00	12.38	S
ATOM	2761	OH2	WAT	S1565	11.411	42.003	26.114	1.00	14.55	S
ATOM	2762	OH2	WAT	S1566	21.341	35.751	40.722	1.00	12.16	S
ATOM	2763	OH2	WAT	S1567	10.175	31.393	39.888	1.00	37.76	S
ATOM	2764	OH2	WAT	S1568	47.181	26.945	33.704	1.00	12.30	S
ATOM	2765	OH2	WAT	S1569	42.028	43.488	36.919	1.00	25.46	S
ATOM	2766	OH2	WAT	S1570	31.053	24.724	15.706	1.00	12.46	S
ATOM	2767	OH2	WAT	S1571	10.314	39.156	33.480	1.00	10.32	S
ATOM	2768	OH2	WAT	S1572	51.433	20.485	50.130	1.00	15.09	S
ATOM	2769	OH2	WAT	S1573	43.925	30.656	51.790	1.00	17.28	S
ATOM	2770	OH2	WAT	S1574	23.091	53.758	28.375	1.00	12.50	S
ATOM	2771	OH2	WAT	S1575	34.977	41.183	53.019	1.00	15.31	S
ATOM	2772	OH2	WAT	S1576	29.766	26.781	12.309	1.00	18.82	S
ATOM	2773	OH2	WAT	S1577	9.190	36.561	30.593	1.00	11.25	S
ATOM	2774	OH2	WAT	S1578	36.599	15.728	48.666	1.00	21.18	S
ATOM	2775	OH2	WAT	S1579	37.724	34.865	54.143	1.00	11.62	S
ATOM	2776	OH2	WAT	S1580	21.457	35.713	12.303	1.00	13.24	S
ATOM	2777	OH2	WAT	S1581	27.734	31.073	59.797	1.00	14.78	S
ATOM	2778	OH2	WAT	S1582	51.536	35.554	40.163	1.00	14.52	S
ATOM	2779	OH2	WAT	S1583	29.933	42.651	53.057	1.00	14.55	S
ATOM	2780	OH2	WAT	S1584	9.469	23.677	25.125	1.00	12.14	S
ATOM	2781	OH2	WAT	S1585	20.704	29.372	11.334	1.00	17.80	S
ATOM	2782	OH2	WAT	S1586	56.481	22.975	38.435	1.00	29.16	S
ATOM	2783	OH2	WAT	S1587	9.572	40.421	17.037	1.00	14.99	S
ATOM	2784	OH2	WAT	S1588	20.542	42.224	40.862	1.00	13.90	S
ATOM	2785	OH2	WAT	S1589	9.567	37.848	39.841	1.00	15.10	S
ATOM	2786	OH2	WAT	S1590	6.391	48.835	28.636	1.00	19.52	S
ATOM	2787	OH2	WAT	S1591	41.492	20.894	55.469	1.00	16.40	S
ATOM	2788	OH2	WAT	S1592	22.505	28.556	52.952	1.00	24.23	S
ATOM	2789	OH2	WAT	S1593	27.720	46.441	20.204	1.00	15.40	S
ATOM	2790	OH2	WAT	S1594	37.216	41.499	30.864	1.00	19.68	S
ATOM	2791	OH2	WAT	S1595	30.199	27.159	15.034	1.00	11.19	S
ATOM	2792	OH2	WAT	S1596	25.139	30.964	53.858	1.00	21.47	S
ATOM	2793	OH2	WAT	S1597	35.730	20.698	18.767	1.00	15.15	S
ATOM	2794	OH2	WAT	S1598	44.994	20.666	23.797	1.00	17.67	S
ATOM	2795	OH2	WAT	S1599	28.802	58.069	26.514	1.00	17.28	S
ATOM	2796	OH2	WAT	S1600	16.767	47.104	22.319	1.00	11.98	S
ATOM	2797	OH2	WAT	S1601	30.159	33.756	60.797	1.00	9.19	S
ATOM	2798	OH2	WAT	S1602	48.106	27.997	36.005	1.00	14.93	S
ATOM	2799	OH2	WAT	S1603	40.650	24.407	21.552	1.00	17.12	S
ATOM	2800	OH2	WAT	S1604	22.968	17.449	18.008	1.00	17.85	S
ATOM	2801	OH2	WAT	S1605	16.621	15.788	18.605	1.00	25.68	S
ATOM	2802	OH2	WAT	S1606	7.206	32.992	16.005	1.00	14.53	S
ATOM	2803	OH2	WAT	S1607	57.149	24.564	47.629	1.00	18.35	S
ATOM	2804	OH2	WAT	S1608	24.205	26.840	10.350	1.00	23.21	S
ATOM	2805	OH2	WAT	S1609	33.745	22.604	31.364	1.00	14.24	S
ATOM	2806	OH2	WAT	S1610	21.687	28.608	49.750	1.00	41.13	S
ATOM	2807	OH2	WAT	S1611	25.572	18.289	18.085	1.00	18.47	S

FIGURE 5 (suite)

ATOM	2808	OH2	WAT	S1612	29.378	22.049	15.378	1.00	18.53	S
ATOM	2809	OH2	WAT	S1613	47.580	17.180	46.156	1.00	18.00	S
ATOM	2810	OH2	WAT	S1614	23.216	43.309	37.644	1.00	13.17	S
ATOM	2811	OH2	WAT	S1615	22.669	24.274	48.564	1.00	24.15	S
ATOM	2812	OH2	WAT	S1616	0.336	31.433	18.582	1.00	27.87	S
ATOM	2813	OH2	WAT	S1617	45.294	33.053	51.773	1.00	13.88	S
ATOM	2814	OH2	WAT	S1618	44.363	26.868	22.624	1.00	23.01	S
ATOM	2815	OH2	WAT	S1619	24.023	16.291	14.532	1.00	14.28	S
ATOM	2816	OH2	WAT	S1620	25.803	16.259	28.626	1.00	18.77	S
ATOM	2817	OH2	WAT	S1621	10.423	51.944	32.078	1.00	36.29	S
ATOM	2818	OH2	WAT	S1622	26.115	58.809	27.014	1.00	15.64	S
ATOM	2819	OH2	WAT	S1623	1.344	28.356	22.672	1.00	26.37	S
ATOM	2820	OH2	WAT	S1624	26.639	58.198	21.115	1.00	25.02	S
ATOM	2821	OH2	WAT	S1625	26.622	32.997	55.284	1.00	16.24	S
ATOM	2822	OH2	WAT	S1626	15.027	52.473	26.183	1.00	21.76	S
ATOM	2823	OH2	WAT	S1627	57.187	25.783	44.900	1.00	20.20	S
ATOM	2824	OH2	WAT	S1628	44.922	43.322	47.514	1.00	18.96	S
ATOM	2825	OH2	WAT	S1629	32.001	38.779	53.199	1.00	17.42	S
ATOM	2826	OH2	WAT	S1630	30.741	52.390	22.108	1.00	18.11	S
ATOM	2827	OH2	WAT	S1631	14.999	39.258	44.162	1.00	19.15	S
ATOM	2828	OH2	WAT	S1632	44.210	20.606	55.552	1.00	17.79	S
ATOM	2829	OH2	WAT	S1633	21.471	43.377	12.416	1.00	19.05	S
ATOM	2830	OH2	WAT	S1634	13.869	15.823	31.777	1.00	25.21	S
ATOM	2831	OH2	WAT	S1635	52.620	30.612	55.173	1.00	30.08	S
ATOM	2832	OH2	WAT	S1636	26.556	19.486	52.050	1.00	29.07	S
ATOM	2833	OH2	WAT	S1637	21.965	25.980	45.841	1.00	19.07	S
ATOM	2834	OH2	WAT	S1638	51.617	33.897	42.473	1.00	9.81	S
ATOM	2835	OH2	WAT	S1639	11.552	20.655	19.351	1.00	16.68	S
ATOM	2836	OH2	WAT	S1640	30.899	45.201	19.222	1.00	26.19	S
ATOM	2837	OH2	WAT	S1641	31.709	48.342	31.000	1.00	18.10	S
ATOM	2838	OH2	WAT	S1642	23.676	25.327	22.818	1.00	14.28	S
ATOM	2839	OH2	WAT	S1643	25.577	17.219	46.479	1.00	20.91	S
ATOM	2840	OH2	WAT	S1644	18.005	18.283	19.152	1.00	24.14	S
ATOM	2841	OH2	WAT	S1645	52.881	16.705	50.095	1.00	20.16	S
ATOM	2842	OH2	WAT	S1646	5.848	42.562	37.856	1.00	19.01	S
ATOM	2843	OH2	WAT	S1647	43.582	14.659	34.565	1.00	28.17	S
ATOM	2844	OH2	WAT	S1648	22.374	17.743	20.886	1.00	18.81	S
ATOM	2845	OH2	WAT	S1649	8.712	48.989	27.030	1.00	23.87	S
ATOM	2846	OH2	WAT	S1650	2.521	47.157	34.228	1.00	30.10	S
ATOM	2847	OH2	WAT	S1651	44.220	43.064	40.109	1.00	29.97	S
ATOM	2848	OH2	WAT	S1652	27.919	24.353	12.179	1.00	16.62	S
ATOM	2849	OH2	WAT	S1653	3.523	42.077	26.249	1.00	22.83	S
ATOM	2850	OH2	WAT	S1654	20.380	44.291	37.672	1.00	17.30	S
ATOM	2851	OH2	WAT	S1655	57.034	28.423	45.056	1.00	27.44	S
ATOM	2852	OH2	WAT	S1656	49.668	24.467	30.455	1.00	22.73	S
ATOM	2853	OH2	WAT	S1657	51.259	13.409	45.586	1.00	34.23	S
ATOM	2854	OH2	WAT	S1658	9.456	23.136	36.163	1.00	24.71	S
ATOM	2855	OH2	WAT	S1659	52.331	23.665	57.905	1.00	18.92	S
ATOM	2856	OH2	WAT	S1660	43.381	40.535	56.268	1.00	30.03	S
ATOM	2857	OH2	WAT	S1661	13.806	46.776	43.159	1.00	30.72	S
ATOM	2858	OH2	WAT	S1662	53.981	30.491	48.223	1.00	13.32	S
ATOM	2859	OH2	WAT	S1663	41.765	26.570	28.744	1.00	27.76	S
ATOM	2860	OH2	WAT	S1664	40.737	17.318	53.732	1.00	24.67	S
ATOM	2861	OH2	WAT	S1665	13.225	44.990	8.674	1.00	28.84	S
ATOM	2862	OH2	WAT	S1666	49.013	41.254	39.651	1.00	28.00	S
ATOM	2863	OH2	WAT	S1667	44.805	37.426	30.933	1.00	16.56	S
ATOM	2864	OH2	WAT	S1668	43.625	18.020	54.500	1.00	24.62	S
ATOM	2865	OH2	WAT	S1669	14.317	25.699	46.118	1.00	34.64	S
ATOM	2866	OH2	WAT	S1670	3.256	42.913	32.109	1.00	29.06	S
ATOM	2867	OH2	WAT	S1671	10.555	49.763	20.725	1.00	28.19	S
ATOM	2868	OH2	WAT	S1672	10.096	51.223	27.611	1.00	23.49	S
ATOM	2869	OH2	WAT	S1673	14.363	23.946	36.209	1.00	40.49	S
ATOM	2870	OH2	WAT	S1674	25.126	59.432	22.831	1.00	22.37	S
ATOM	2871	OH2	WAT	S1675	36.093	4.004	46.425	1.00	41.05	S
ATOM	2872	OH2	WAT	S1676	58.346	33.177	43.906	1.00	32.25	S
ATOM	2873	OH2	WAT	S1677	48.932	35.192	51.801	1.00	26.68	S
ATOM	2874	OH2	WAT	S1678	58.902	19.301	43.107	1.00	25.48	S
ATOM	2875	OH2	WAT	S1679	44.340	42.085	50.822	1.00	28.00	S
ATOM	2876	OH2	WAT	S1680	50.480	38.266	34.016	1.00	31.92	S
ATOM	2877	OH2	WAT	S1681	32.259	20.178	55.706	1.00	22.68	S
ATOM	2878	OH2	WAT	S1682	5.907	48.823	21.778	1.00	41.37	S
ATOM	2879	OH2	WAT	S1683	50.286	29.738	36.205	1.00	41.24	S
ATOM	2880	OH2	WAT	S1684	48.359	24.392	27.682	1.00	21.59	S
ATOM	2881	OH2	WAT	S1685	28.819	16.491	25.944	1.00	22.91	S
ATOM	2882	OH2	WAT	S1686	27.814	39.366	53.598	1.00	22.13	S
ATOM	2883	OH2	WAT	S1687	23.282	56.182	29.647	1.00	21.73	S

FIGURE 5 (suite)

ATOM	2884	OH2	WAT	S1688	11.176	51.488	23.245	1.00	39.40	S
ATOM	2885	OH2	WAT	S1689	19.333	13.893	25.470	1.00	16.29	S
ATOM	2886	OH2	WAT	S1690	15.528	35.966	43.442	1.00	24.55	S
ATOM	2887	OH2	WAT	S1691	28.485	18.098	54.189	1.00	38.82	S
ATOM	2888	OH2	WAT	S1692	49.461	42.346	42.415	1.00	29.71	S
ATOM	2889	OH2	WAT	S1693	6.986	51.318	31.491	1.00	38.19	S
ATOM	2890	OH2	WAT	S1694	45.805	30.330	30.352	1.00	31.74	S
ATOM	2891	OH2	WAT	S1695	12.688	17.949	24.810	1.00	24.29	S
ATOM	2892	OH2	WAT	S1696	10.481	44.192	41.405	1.00	30.36	S
ATOM	2893	OH2	WAT	S1697	36.497	25.163	61.042	1.00	22.75	S
ATOM	2894	OH2	WAT	S1698	38.997	8.895	40.582	1.00	35.83	S
ATOM	2895	OH2	WAT	S1699	34.429	41.271	24.603	1.00	25.66	S
ATOM	2896	OH2	WAT	S1700	9.264	39.356	31.031	1.00	12.79	S
ATOM	2897	OH2	WAT	S1701	10.070	23.977	42.971	1.00	38.68	S
ATOM	2898	OH2	WAT	S1702	18.383	29.372	9.706	1.00	36.59	S
ATOM	2899	OH2	WAT	S1703	49.044	14.511	44.663	1.00	29.13	S
ATOM	2900	OH2	WAT	S1704	24.559	26.271	39.612	1.00	9.57	S
ATOM	2901	OH2	WAT	S1705	20.114	45.757	12.779	1.00	24.18	S
ATOM	2902	OH2	WAT	S1706	40.248	22.113	20.074	1.00	29.44	S
ATOM	2903	OH2	WAT	S1707	18.194	41.869	42.229	1.00	17.46	S
ATOM	2904	OH2	WAT	S1708	37.847	20.546	20.498	1.00	18.73	S
ATOM	2905	OH2	WAT	S1709	16.821	29.280	41.001	1.00	24.06	S
ATOM	2906	OH2	WAT	S1710	27.294	42.193	52.815	1.00	19.46	S
ATOM	2907	OH2	WAT	S1711	40.821	42.347	51.556	1.00	22.66	S
ATOM	2908	OH2	WAT	S1712	26.156	40.106	48.095	1.00	24.85	S
ATOM	2909	OH2	WAT	S1713	20.103	24.718	47.608	1.00	30.63	S
ATOM	2910	OH2	WAT	S1714	24.148	33.741	56.397	1.00	19.34	S
ATOM	2911	OH2	WAT	S1715	18.973	45.993	36.285	1.00	18.68	S
ATOM	2912	OH2	WAT	S1716	14.529	44.714	35.623	1.00	11.98	S
ATOM	2913	OH2	WAT	S1717	38.781	35.753	22.003	1.00	28.14	S
ATOM	2914	OH2	WAT	S1718	9.031	37.190	34.220	1.00	30.97	S
ATOM	2915	OH2	WAT	S1719	35.994	16.311	25.745	1.00	28.93	S
ATOM	2916	OH2	WAT	S1720	13.544	49.140	34.673	1.00	19.62	S
ATOM	2917	OH2	WAT	S1721	22.265	37.832	42.637	1.00	21.65	S
ATOM	2918	OH2	WAT	S1722	9.246	42.739	13.991	1.00	23.76	S
ATOM	2919	OH2	WAT	S1723	46.901	14.013	46.528	1.00	24.08	S
ATOM	2920	OH2	WAT	S1724	27.124	17.124	56.373	1.00	20.76	S
ATOM	2921	OH2	WAT	S1725	5.808	39.927	37.880	1.00	30.10	S
ATOM	2922	OH2	WAT	S1726	42.361	20.811	20.431	1.00	24.61	S
ATOM	2923	OH2	WAT	S1727	26.665	17.537	21.374	1.00	22.27	S
ATOM	2924	OH2	WAT	S1728	57.473	29.684	48.797	1.00	33.94	S
ATOM	2925	OH2	WAT	S1729	0.205	29.580	11.300	1.00	28.38	S
ATOM	2926	OH2	WAT	S1730	28.982	12.144	36.663	1.00	22.16	S
ATOM	2927	OH2	WAT	S1731	-2.247	31.885	18.386	1.00	37.56	S
ATOM	2928	OH2	WAT	S1732	19.593	14.821	28.910	1.00	29.82	S
ATOM	2929	OH2	WAT	S1733	1.174	27.052	34.363	1.00	22.10	S
ATOM	2930	OH2	WAT	S1734	35.909	11.924	47.248	1.00	27.93	S
ATOM	2931	OH2	WAT	S1735	41.887	40.436	52.838	1.00	28.22	S
ATOM	2932	OH2	WAT	S1736	26.213	19.454	10.997	1.00	22.64	S
ATOM	2933	OH2	WAT	S1737	34.114	42.884	34.175	1.00	28.42	S
ATOM	2934	OH2	WAT	S1738	22.945	32.302	53.065	1.00	25.85	S
ATOM	2935	OH2	WAT	S1739	39.089	15.172	28.466	1.00	31.20	S
ATOM	2936	OH2	WAT	S1740	47.610	43.601	46.621	1.00	36.15	S
ATOM	2937	OH2	WAT	S1741	16.327	45.853	37.179	1.00	17.39	S
ATOM	2938	OH2	WAT	S1742	55.363	25.260	59.367	1.00	29.21	S
ATOM	2939	OH2	WAT	S1743	30.641	36.731	14.630	1.00	26.83	S
ATOM	2940	OH2	WAT	S1744	10.864	46.250	10.531	1.00	23.96	S
ATOM	2941	OH2	WAT	S1745	33.170	48.399	28.312	1.00	27.45	S
ATOM	2942	OH2	WAT	S1746	32.054	14.892	42.067	1.00	24.32	S
ATOM	2943	OH2	WAT	S1747	42.724	28.782	21.018	1.00	34.32	S
ATOM	2944	OH2	WAT	S1748	51.123	15.697	52.194	1.00	27.97	S
ATOM	2945	OH2	WAT	S1749	42.354	43.166	56.140	1.00	29.49	S
ATOM	2946	OH2	WAT	S1750	28.037	37.891	13.736	1.00	33.67	S
ATOM	2947	OH2	WAT	S1751	51.086	26.646	30.768	1.00	30.84	S
ATOM	2948	OH2	WAT	S1752	10.931	38.592	10.467	1.00	25.71	S
ATOM	2949	OH2	WAT	S1753	25.655	29.886	60.929	1.00	19.64	S
ATOM	2950	OH2	WAT	S1754	17.145	13.376	23.383	1.00	34.23	S
ATOM	2951	OH2	WAT	S1755	44.748	12.372	45.391	1.00	18.99	S
ATOM	2952	OH2	WAT	S1756	24.658	10.868	33.101	1.00	39.56	S
ATOM	2953	OH2	WAT	S1757	10.322	35.265	39.792	1.00	31.55	S
ATOM	2954	OH2	WAT	S1758	57.341	22.537	45.377	1.00	16.36	S
ATOM	2955	OH2	WAT	S1759	9.420	34.820	36.963	1.00	32.92	S
ATOM	2956	OH2	WAT	S1760	32.502	28.596	14.854	1.00	21.37	S
ATOM	2957	OH2	WAT	S1761	39.205	22.929	17.441	1.00	35.60	S
ATOM	2958	OH2	WAT	S1762	20.840	52.812	17.278	1.00	31.30	S
ATOM	2959	OH2	WAT	S1763	34.711	11.735	35.138	1.00	32.11	S

FIGURE 5 (suite)

ATOM	2960	OH2	WAT	S1764	51.666	34.131	47.365	1.00	35.34	S
ATOM	2961	OH2	WAT	S1765	-2.014	36.180	15.830	1.00	28.16	S
ATOM	2962	OH2	WAT	S1766	15.482	48.721	37.060	1.00	29.26	S
ATOM	2963	OH2	WAT	S1767	40.630	14.716	31.062	1.00	40.40	S
ATOM	2964	OH2	WAT	S1768	23.698	61.256	21.533	1.00	16.86	S
ATOM	2965	OH2	WAT	S1769	24.781	28.532	54.977	1.00	16.20	S
ATOM	2966	OH2	WAT	S1770	26.852	25.257	10.061	1.00	30.41	S
ATOM	2967	OH2	WAT	S1771	43.726	10.405	46.878	1.00	29.13	S
ATOM	2968	OH2	WAT	S1772	25.837	37.362	54.027	1.00	21.97	S
ATOM	2969	OH2	WAT	S1773	33.373	46.686	32.566	1.00	26.20	S
ATOM	2970	OH2	WAT	S1774	27.264	20.817	13.545	1.00	22.02	S
ATOM	2971	OH2	WAT	S1775	47.925	30.806	31.477	1.00	33.49	S
ATOM	2972	OH2	WAT	S1776	8.238	38.202	37.592	1.00	26.28	S
ATOM	2973	OH2	WAT	S1777	21.090	51.641	25.222	1.00	18.54	S
ATOM	2974	OH2	WAT	S1778	6.267	38.069	32.873	1.00	22.17	S
ATOM	2975	OH2	WAT	S1779	23.234	49.347	16.745	1.00	24.08	S
ATOM	2976	OH2	WAT	S1780	22.134	39.856	40.656	1.00	21.00	S
ATOM	2977	OH2	WAT	S1781	20.856	35.405	9.637	1.00	23.13	S
ATOM	2978	OH2	WAT	S1782	21.475	53.999	26.047	1.00	27.01	S
ATOM	2979	OH2	WAT	S1783	34.915	27.212	15.190	1.00	31.71	S
ATOM	2980	OH2	WAT	S1784	45.211	12.993	42.137	1.00	21.38	S
ATOM	2981	OH2	WAT	S1785	38.126	34.805	40.034	1.00	17.57	S
ATOM	2982	OH2	WAT	S1786	30.962	49.798	21.332	1.00	32.31	S
ATOM	2983	OH2	WAT	S1787	33.222	19.319	25.705	1.00	29.22	S
ATOM	2984	OH2	WAT	S1788	40.144	19.662	28.253	1.00	33.93	S
ATOM	2985	OH2	WAT	S1789	6.555	28.590	37.281	1.00	28.90	S
ATOM	2986	OH2	WAT	S1790	43.426	43.935	45.155	1.00	34.35	S
ATOM	2987	OH2	WAT	S1791	3.263	33.201	14.705	1.00	33.11	S
ATOM	2988	OH2	WAT	S1792	20.149	16.998	31.047	1.00	26.99	S
ATOM	2989	OH2	WAT	S1793	34.123	42.842	21.180	1.00	24.49	S
ATOM	2990	OH2	WAT	S1794	49.929	18.274	53.829	1.00	39.26	S
ATOM	2991	OH2	WAT	S1795	14.815	31.617	9.739	1.00	35.94	S
ATOM	2992	OH2	WAT	S1796	45.588	41.539	53.753	1.00	35.01	S
ATOM	2993	OH2	WAT	S1797	33.245	52.433	24.002	1.00	34.85	S
ATOM	2994	OH2	WAT	S1798	43.010	24.276	22.909	1.00	21.38	S
ATOM	2995	OH2	WAT	S1799	19.769	14.826	46.718	1.00	30.67	S
ATOM	2996	OH2	WAT	S1800	29.812	17.873	43.458	1.00	28.85	S
ATOM	2997	OH2	WAT	S1801	7.028	22.438	24.718	1.00	30.13	S
ATOM	2998	OH2	WAT	S1802	7.451	42.723	16.836	1.00	34.86	S
ATOM	2999	OH2	WAT	S1803	13.062	50.532	16.899	1.00	27.23	S
ATOM	3000	OH2	WAT	S1804	31.535	17.528	46.115	1.00	21.48	S
ATOM	3001	OH2	WAT	S1805	1.214	41.199	23.409	1.00	33.03	S
ATOM	3002	OH2	WAT	S1806	12.350	33.958	40.836	1.00	34.82	S
ATOM	3003	OH2	WAT	S1807	33.164	41.928	54.755	1.00	33.81	S
ATOM	3004	OH2	WAT	S1808	4.467	50.285	27.482	1.00	36.79	S
ATOM	3005	OH2	WAT	S1809	60.702	26.732	42.684	1.00	35.13	S
ATOM	3006	OH2	WAT	S1810	22.799	31.560	57.795	1.00	32.80	S
ATOM	3007	OH2	WAT	S1811	16.630	35.862	8.507	1.00	29.92	S
ATOM	3008	OH2	WAT	S1812	58.212	35.487	40.540	1.00	33.76	S
ATOM	3009	OH2	WAT	S1813	31.566	17.525	26.426	1.00	39.01	S
ATOM	3010	OH2	WAT	S1814	38.884	37.614	20.120	1.00	33.89	S
ATOM	3011	OH2	WAT	S1815	58.154	24.777	37.822	1.00	35.73	S
ATOM	3012	OH2	WAT	S1816	34.384	14.783	47.649	1.00	37.28	S
ATOM	3013	OH2	WAT	S1817	3.439	43.153	36.372	1.00	30.78	S
ATOM	3014	OH2	WAT	S1818	47.394	12.444	43.290	1.00	30.32	S
ATOM	3015	OH2	WAT	S1819	24.644	13.829	44.044	1.00	32.65	S
ATOM	3016	OH2	WAT	S1820	35.990	42.985	32.322	1.00	29.66	S
ATOM	3017	OH2	WAT	S1821	26.914	40.212	9.947	1.00	33.58	S
ATOM	3018	OH2	WAT	S1822	40.296	29.386	23.361	1.00	44.10	S
ATOM	3019	OH2	WAT	S1823	42.915	30.163	27.417	1.00	33.23	S
ATOM	3020	OH2	WAT	S1824	14.322	38.428	8.032	1.00	35.73	S
ATOM	3021	OH2	WAT	S1825	33.329	16.000	45.385	1.00	29.78	S
ATOM	3022	OH2	WAT	S1826	55.683	28.168	38.449	1.00	30.81	S
ATOM	3023	OH2	WAT	S1827	18.514	45.706	9.695	1.00	34.33	S
ATOM	3024	OH2	WAT	S1828	19.453	54.788	22.809	1.00	42.02	S
ATOM	3025	OH2	WAT	S1829	46.686	27.005	20.816	1.00	31.17	S
ATOM	3026	OH2	WAT	S1830	50.779	32.327	54.666	1.00	44.04	S
ATOM	3027	OH2	WAT	S1831	5.243	43.614	40.262	1.00	40.69	S
ATOM	3028	OH2	WAT	S1832	45.151	43.041	33.919	1.00	28.47	S
ATOM	3029	OH2	WAT	S1833	26.385	11.949	41.104	1.00	33.70	S
ATOM	3030	OH2	WAT	S1834	36.104	26.756	17.653	1.00	32.43	S
ATOM	3031	OH2	WAT	S1835	40.585	7.298	41.894	1.00	32.97	S
ATOM	3032	OH2	WAT	S1836	22.940	54.196	16.985	1.00	39.88	S
ATOM	3033	OH2	WAT	S1837	53.968	24.450	37.442	1.00	39.29	S
ATOM	3034	OH2	WAT	S1838	16.318	26.973	42.179	1.00	32.94	S
ATOM	3035	OH2	WAT	S1839	14.513	48.940	39.307	1.00	29.97	S

FIGURE 5 (suite)

ATOM	3036	OH2	WAT	S1840	31.652	6.945	51.493	1.00	27.66	S
ATOM	3037	OH2	WAT	S1841	41.996	11.677	38.039	1.00	37.88	S
ATOM	3038	OH2	WAT	S1842	7.510	48.642	19.668	1.00	35.11	S
ATOM	3039	OH2	WAT	S1843	42.467	3.493	49.912	1.00	33.41	S
ATOM	3040	OH2	WAT	S1844	59.776	22.501	42.412	1.00	44.37	S
ATOM	3041	OH2	WAT	S1845	7.867	44.473	12.687	1.00	34.20	S
ATOM	3042	OH2	WAT	S1846	15.405	45.353	39.658	1.00	38.08	S
ATOM	3043	OH2	WAT	S1847	13.585	15.183	28.501	1.00	36.58	S
ATOM	3044	OH2	WAT	S1848	48.442	41.492	47.985	1.00	26.95	S
ATOM	3045	OH2	WAT	S1849	50.374	40.886	46.017	1.00	34.93	S
ATOM	3046	OH2	WAT	S1850	44.568	8.030	45.822	1.00	42.34	S
ATOM	3047	OH2	WAT	S1851	48.705	28.443	22.632	1.00	34.87	S
ATOM	3048	OH2	WAT	S1852	38.217	33.408	18.268	1.00	40.91	S
ATOM	3049	OH2	WAT	S1853	26.698	47.866	16.749	1.00	26.87	S
ATOM	3050	OH2	WAT	S1854	36.624	40.405	57.361	1.00	30.57	S
ATOM	3051	OH2	WAT	S1855	44.243	22.209	21.682	1.00	25.97	S
ATOM	3052	OH2	WAT	S1856	50.807	22.291	30.826	1.00	30.01	S
ATOM	3053	OH2	WAT	S1857	2.113	19.175	16.420	1.00	39.64	S
ATOM	3054	OH2	WAT	S1858	35.799	20.261	25.717	1.00	29.95	S
ATOM	3055	OH2	WAT	S1859	10.845	51.013	18.474	1.00	29.30	S
ATOM	3056	OH2	WAT	S1860	13.036	16.982	18.603	1.00	35.56	S
ATOM	3057	OH2	WAT	S1861	48.755	33.466	53.529	1.00	32.19	S
ATOM	3058	OH2	WAT	S1862	28.542	12.640	28.777	1.00	32.37	S
ATOM	3059	OH2	WAT	S1863	15.582	33.781	40.294	1.00	31.38	S
ATOM	3060	OH2	WAT	S1864	15.389	51.736	31.264	1.00	35.97	S
ATOM	3061	OH2	WAT	S1865	59.586	24.576	44.154	1.00	38.45	S
ATOM	3062	OH2	WAT	S1866	33.931	18.197	52.470	1.00	31.45	S
ATOM	3063	OH2	WAT	S1867	33.400	24.810	14.487	1.00	31.43	S
ATOM	3064	OH2	WAT	S1868	2.939	39.474	28.464	1.00	42.13	S
ATOM	3065	OH2	WAT	S1869	52.149	36.661	45.439	1.00	34.90	S
ATOM	3066	OH2	WAT	S1870	45.901	34.119	54.146	1.00	28.55	S
ATOM	3067	OH2	WAT	S1871	21.485	29.372	44.666	1.00	37.03	S
ATOM	3068	OH2	WAT	S1872	10.455	19.175	23.705	1.00	36.18	S
ATOM	3069	OH2	WAT	S1873	29.820	54.141	17.625	1.00	37.56	S
ATOM	3070	OH2	WAT	S1874	36.824	12.036	41.616	1.00	36.62	S
ATOM	3071	OH2	WAT	S1875	35.575	29.695	13.582	1.00	31.58	S
ATOM	3072	OH2	WAT	S1876	47.689	26.645	56.483	1.00	29.75	S
ATOM	3073	OH2	WAT	S1877	25.923	24.021	7.877	1.00	35.32	S
ATOM	3074	OH2	WAT	S1878	35.914	42.663	19.444	1.00	38.13	S
ATOM	3075	OH2	WAT	S1879	53.553	27.199	37.462	1.00	34.02	S
ATOM	3076	OH2	WAT	S1880	31.012	18.989	51.960	1.00	32.14	S
ATOM	3077	OH2	WAT	S1881	5.543	24.207	39.126	1.00	33.92	S
ATOM	3078	OH2	WAT	S1882	12.515	49.450	14.280	1.00	38.32	S
ATOM	3079	OH2	WAT	S1883	19.621	34.441	42.264	1.00	32.10	S
ATOM	3080	OH2	WAT	S1884	0.567	34.443	15.606	1.00	41.76	S
ATOM	3081	OH2	WAT	S1885	19.842	21.597	48.228	1.00	38.20	S
ATOM	3082	OH2	WAT	S1886	17.245	44.489	41.443	1.00	36.34	S
ATOM	3083	OH2	WAT	S1887	31.241	17.703	18.315	1.00	43.85	S
ATOM	3084	OH2	WAT	S1888	47.120	35.974	31.511	1.00	44.95	S
ATOM	3085	OH2	WAT	S1889	16.721	12.447	25.646	1.00	42.81	S
ATOM	3086	OH2	WAT	S1890	17.002	21.309	47.530	1.00	35.74	S
ATOM	3087	OH2	WAT	S1891	11.124	36.224	11.415	1.00	28.23	S
ATOM	3088	OH2	WAT	S1892	31.476	35.439	12.666	1.00	29.98	S
ATOM	3089	OH2	WAT	S1893	20.313	44.798	8.239	1.00	38.49	S
ATOM	3090	OH2	WAT	S1894	49.492	37.692	31.490	1.00	34.21	S
ATOM	3091	OH2	WAT	S1895	11.168	48.631	11.775	1.00	35.00	S
ATOM	3092	OH2	WAT	S1896	8.149	35.174	12.830	1.00	43.18	S
ATOM	3093	OH2	WAT	S1897	42.985	36.028	29.277	1.00	37.84	S
ATOM	3094	OH2	WAT	S1898	15.722	26.088	38.269	1.00	40.56	S
ATOM	3095	OH2	WAT	S1899	9.466	42.584	43.325	1.00	38.58	S
ATOM	3096	OH2	WAT	S1900	55.683	27.859	55.011	1.00	40.16	S
ATOM	3097	OH2	WAT	S1901	16.412	44.824	6.088	1.00	35.00	S
ATOM	3098	OH2	WAT	S1902	30.819	20.863	13.376	1.00	36.12	S
ATOM	3099	OH2	WAT	S1903	20.083	45.050	40.249	1.00	46.55	S
ATOM	3100	OH2	WAT	S1904	55.216	16.767	37.256	1.00	32.34	S
ATOM	3101	OH2	WAT	S1905	17.194	15.633	31.289	1.00	41.92	S
ATOM	3102	OH2	WAT	S1906	55.468	39.305	45.956	1.00	33.48	S
ATOM	3103	OH2	WAT	S1907	34.073	59.171	22.880	1.00	29.68	S
ATOM	3104	OH2	WAT	S1908	11.696	23.487	37.533	1.00	44.83	S
ATOM	3105	OH2	WAT	S1909	37.193	57.700	24.645	1.00	29.20	S
ATOM	3106	OH2	WAT	S1910	4.958	20.071	12.971	1.00	38.75	S
ATOM	3107	OH2	WAT	S1911	28.212	15.651	46.090	1.00	44.28	S
ATOM	3108	OH2	WAT	S1912	25.791	17.881	50.101	1.00	44.07	S
ATOM	3109	OH2	WAT	S1913	44.830	16.225	28.015	1.00	37.34	S
ATOM	3110	OH2	WAT	S1914	45.538	25.603	58.524	1.00	31.60	S
ATOM	3111	OH2	WAT	S1915	31.849	53.832	20.135	1.00	44.08	S

FIGURE 5 (suite)

ATOM	3112	OH2	WAT	S1916	55.981	32.376	47.108	1.00	41.65	S
ATOM	3113	OH2	WAT	S1917	35.699	24.353	16.736	1.00	43.04	S
ATOM	3114	OH2	WAT	S1918	3.252	25.157	38.490	1.00	42.38	S
ATOM	3115	OH2	WAT	S1919	34.711	10.496	39.861	1.00	36.97	S
ATOM	3116	OS4	PLA	P1001	8.781	29.613	10.689	1.00	35.34	P
ATOM	3117	S2	PLA	P1001	9.783	28.546	11.256	1.00	33.57	P
ATOM	3118	OS5	PLA	P1001	10.409	27.663	9.867	1.00	40.37	P
ATOM	3119	OS6	PLA	P1001	11.159	29.189	12.135	1.00	41.03	P
ATOM	3120	C15	PLA	P1001	9.058	27.351	12.199	1.00	30.49	P
ATOM	3121	C14	PLA	P1001	7.662	27.126	12.015	1.00	23.35	P
ATOM	3122	C16	PLA	P1001	9.978	26.532	12.898	1.00	28.94	P
ATOM	3123	C10	PLA	P1001	9.499	25.436	13.634	1.00	30.90	P
ATOM	3124	C11	PLA	P1001	8.025	25.127	13.485	1.00	25.22	P
ATOM	3125	C13	PLA	P1001	7.134	25.968	12.614	1.00	21.41	P
ATOM	3126	O3	PLA	P1001	5.837	25.588	12.437	1.00	24.00	P
ATOM	3127	C12	PLA	P1001	7.519	23.932	14.212	1.00	27.53	P
ATOM	3128	O2	PLA	P1001	6.235	23.585	13.967	1.00	21.97	P
ATOM	3129	C9	PLA	P1001	10.366	24.618	14.415	1.00	32.13	P
ATOM	3130	C8	PLA	P1001	9.876	23.541	15.205	1.00	31.56	P
ATOM	3131	S1	PLA	P1001	10.846	22.324	15.981	1.00	31.16	P
ATOM	3132	OS3	PLA	P1001	12.358	22.881	16.679	1.00	39.44	P
ATOM	3133	OS2	PLA	P1001	11.138	21.153	14.733	1.00	28.72	P
ATOM	3134	OS1	PLA	P1001	10.061	21.436	17.011	1.00	39.17	P
ATOM	3135	C7	PLA	P1001	8.424	23.154	15.086	1.00	20.93	P
ATOM	3136	N2	PLA	P1001	7.947	21.974	15.652	1.00	27.49	P
ATOM	3137	N1	PLA	P1001	6.731	21.270	15.708	1.00	26.74	P
ATOM	3138	C2	PLA	P1001	6.780	19.948	16.206	1.00	29.90	P
ATOM	3139	C1	PLA	P1001	7.938	19.230	16.659	1.00	26.11	P
ATOM	3140	C3	PLA	P1001	5.455	19.218	16.215	1.00	29.97	P
ATOM	3141	O1	PLA	P1001	4.329	19.881	15.839	1.00	27.77	P
ATOM	3142	C4	PLA	P1001	5.419	17.867	16.622	1.00	27.79	P
ATOM	3143	C5	PLA	P1001	6.617	17.226	17.060	1.00	24.04	P
ATOM	3144	C6	PLA	P1001	7.890	17.875	17.105	1.00	28.93	P
ATOM	3145	CL1	PLA	P1001	8.958	17.179	17.619	1.00	13.83	P
ATOM	3146	OS4	PLA	P1002	-1.265	32.010	14.293	1.00	40.73	P
ATOM	3147	S2	PLA	P1002	-2.593	31.401	14.907	1.00	34.43	P
ATOM	3148	OS5	PLA	P1002	-3.293	32.318	16.225	1.00	36.70	P
ATOM	3149	OS6	PLA	P1002	-3.702	31.417	13.545	1.00	38.28	P
ATOM	3150	C15	PLA	P1002	-2.360	29.762	15.366	1.00	37.51	P
ATOM	3151	C14	PLA	P1002	-1.339	29.023	14.693	1.00	32.35	P
ATOM	3152	C16	PLA	P1002	-3.324	29.136	16.198	1.00	32.13	P
ATOM	3153	C10	PLA	P1002	-3.227	27.770	16.534	1.00	32.57	P
ATOM	3154	C11	PLA	P1002	-2.159	26.968	15.824	1.00	27.55	P
ATOM	3155	C13	PLA	P1002	-1.219	27.623	14.849	1.00	32.76	P
ATOM	3156	O3	PLA	P1002	-0.300	26.897	14.135	1.00	26.73	P
ATOM	3157	C12	PLA	P1002	-2.103	25.533	16.170	1.00	29.76	P
ATOM	3158	O2	PLA	P1002	-1.093	24.861	15.620	1.00	19.01	P
ATOM	3159	C9	PLA	P1002	-4.076	27.177	17.503	1.00	28.28	P
ATOM	3160	C8	PLA	P1002	-4.072	25.777	17.756	1.00	30.57	P
ATOM	3161	S1	PLA	P1002	-4.937	25.049	19.065	1.00	30.09	P
ATOM	3162	OS3	PLA	P1002	-6.417	25.925	19.382	1.00	26.32	P
ATOM	3163	OS2	PLA	P1002	-3.886	25.328	20.444	1.00	39.20	P
ATOM	3164	OS1	PLA	P1002	-5.060	23.483	18.960	1.00	35.43	P
ATOM	3165	C7	PLA	P1002	-3.056	24.884	17.116	1.00	30.01	P
ATOM	3166	N2	PLA	P1002	-2.942	23.547	17.510	1.00	30.83	P
ATOM	3167	N1	PLA	P1002	-1.994	22.600	17.132	1.00	26.11	P
ATOM	3168	C2	PLA	P1002	-2.109	21.347	17.777	1.00	33.57	P
ATOM	3169	C1	PLA	P1002	-3.069	20.979	18.767	1.00	28.55	P
ATOM	3170	C3	PLA	P1002	-1.126	20.289	17.352	1.00	32.70	P
ATOM	3171	O1	PLA	P1002	-0.254	20.633	16.366	1.00	26.71	P
ATOM	3172	C4	PLA	P1002	-1.181	19.011	17.978	1.00	35.63	P
ATOM	3173	C5	PLA	P1002	-2.175	18.727	18.965	1.00	32.99	P
ATOM	3174	C6	PLA	P1002	-3.137	19.696	19.364	1.00	34.82	P
ATOM	3175	CL1	PLA	P1002	-4.110	19.418	20.286	1.00	26.50	P
ATOM	3176	P	PO4	I1000	31.378	36.578	34.442	1.00	7.30	I
ATOM	3177	O1	PO4	I1000	30.121	37.237	34.900	1.00	8.97	I
ATOM	3178	O2	PO4	I1000	32.276	37.563	33.795	1.00	6.24	I
ATOM	3179	O3	PO4	I1000	31.043	35.497	33.462	1.00	6.45	I
ATOM	3180	O4	PO4	I1000	32.089	35.965	35.624	1.00	7.79	I
ATOM	3181	U	U	I1100	0.273	22.910	15.547	1.00	30.28	I
ATOM	3182	U	U	I1101	4.450	22.112	14.520	1.00	29.14	I
ATOM	3183	U	U	I1102	2.292	24.635	12.979	0.50	39.41	I
ATOM	3184	NA	NA	I1200	37.019	13.768	54.963	1.00	21.53	I
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FIGURE 5 (suite)

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UNIVERSITE HENRI POINCARÉ DE NANCY

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Gly Lys Leu Ile Glu Val Pro Ser Val Ala Thr Ser Val Ala Ile Pro
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Phe Arg Lys Ala Gly Gly Asn Ala Val Asp Leu Ser Val Lys Glu Leu
          100          105          110

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 Ile Ser Ser Gly Leu Lys Tyr Pro Gly Met Pro Asn Phe Ala Pro Asp
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          50          55          60

Phe Ser Thr Gly Leu Lys Tyr Pro Gly Ile Lys Ser Phe Asp Pro Ser
65          70          75          80

Lys Pro Gly Lys Ile Leu Leu Met Asp Leu Asn Lys Lys Glu Pro Ala
          85          90          95

Val Ser Glu Leu Glu Ile Ile Gly Asn Thr Leu Asp Ile Ser Ser Phe
          100          105          110

Asn Pro His Gly Ile Ser Thr Phe Thr Asp Glu Asp Asn Thr Val Tyr
          115          120          125

Leu Leu Val Val Asn His Pro Asp Ser Ser Ser Thr Val Glu Val Phe
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Lys Phe Gln Glu Glu Glu Arg Ser Leu Leu His Leu Lys Thr Ile Thr
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His Glu Leu Leu Pro Ser Ile Asn Asp Ile Ala Ala Ile Gly Pro Glu
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Ser Phe Tyr Ala Thr Asn Asp His Tyr Phe Ala Asp Pro Tyr Leu Arg
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Val Asp Pro Val Thr Gly Asp Leu Trp Val Gly Cys His Pro Asn Gly
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 Ala His Glu Ile His Val Leu Glu Lys Gln Pro Asn Met Asn Leu Thr
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 Gln Leu Lys Val Leu Gln Leu Gly Thr Leu Val Asp Asn Leu Ser Ile
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 Asp Pro Ser Ser Gly Asp Ile Trp Val Gly Cys His Pro Asn Gly Gln
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 65 70 75 80
 Lys Pro Gly Arg Ile Phe Leu Met Asp Leu Asn Glu Gln Asn Pro Glu
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 Ala Gln Ala Leu Glu Ile Ser Gly Gly Leu Asp Gln Glu Ser Leu Asn
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 Pro His Gly Ile Ser Thr Phe Ile Asp Lys Asp Asn Thr Ala Tyr Leu
 115 120 125

INTERNATIONAL SEARCH REPORT

National Application No

/FR2004/002797

A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 C07K14/47

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 C07K

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EP0-Internal, Sequence Search, BIOSIS, EMBASE, PAJ, WPI Data

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 2003/158115 A1 (LIESKE JOHN C ET AL) 21 August 2003 (2003-08-21) abstract example 6 SEQ ID No 16	1-9
X	----- DATABASE UNIPROT 'Online! EBI; 10 October 2003 (2003-10-10), XP002275669 Database accession no. P35482 the whole document ----- -/--	1-9

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- *O* document referring to an oral disclosure, use, exhibition or other means
- *P* document published prior to the international filing date but later than the priority date claimed

- *T* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
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- *&* document member of the same patent family

Date of the actual completion of the international search

23 March 2005

Date of mailing of the international search report

01/04/2005

Name and mailing address of the ISA

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Authorized officer

Keller, Y

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

/FR2004/002797

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 2003158115 A1	21-08-2003	US 6482934 B1	19-11-2002

RAPPORT DE RECHERCHE INTERNATIONALE

Recherche internationale No

/FR2004/002797

A. CLASSEMENT DE L'OBJET DE LA DEMANDE
CIB 7 C07K14/47

Selon la classification internationale des brevets (CIB) ou à la fois selon la classification nationale et la CIB

B. DOMAINES SUR LESQUELS LA RECHERCHE A PORTE

Documentation minimale consultée (système de classification suivi des symboles de classement)
CIB 7 C07K

Documentation consultée autre que la documentation minimale dans la mesure où ces documents relèvent des domaines sur lesquels a porté la recherche

Base de données électronique consultée au cours de la recherche internationale (nom de la base de données, et si réalisable, termes de recherche utilisés)

EPO-Internal, Sequence Search, BIOSIS, EMBASE, PAJ, WPI Data

C. DOCUMENTS CONSIDERES COMME PERTINENTS

Catégorie *	Identification des documents cités, avec, le cas échéant, l'indication des passages pertinents	no. des revendications visées
X	US 2003/158115 A1 (LIESKE JOHN C ET AL) 21 août 2003 (2003-08-21) abrégé exemple 6 SEQ ID No 16	1-9
X	----- DATABASE UNIPROT 'Online! EBI; 10 octobre 2003 (2003-10-10), XP002275669 Database accession no. P35482 le document en entier ----- -/--	1-9

☒ Voir la suite du cadre C pour la fin de la liste des documents

☒ Les documents de familles de brevets sont indiqués en annexe

* Catégories spéciales de documents cités:

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Date à laquelle la recherche internationale a été effectivement achevée

23 mars 2005

Date d'expédition du présent rapport de recherche internationale

01/04/2005

Nom et adresse postale de l'administration chargée de la recherche internationale
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Fax: (+31-70) 340-3016

Fonctionnaire autorisé

Keller, Y

Renseignements relatifs aux membres de familles de brevets

.../FR2004/002797

Formulaire PCT/ISA/210 (annexe familles de brevets) (Janvier 2004)

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